

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW65-02-B-0001	2. TYPE OF SOLICITATION <input checked="checked" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 07-Dec-2001	PAGE OF PAGES 1 OF 31
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.				
4. CONTRACT NO.		5. REQUISITION/PURCHASE REQUEST NO. W26GLG-1323-0806		6. PROJECT NO.
7. ISSUED BY CODE DACW65 CONTRACTING OFFICE (CA/CW) US ARMY ENGR DIST NORFOLK ATTN: CENAO-CT 803 FRONT STREET NORFOLK VA 23510-1096 TEL: (757) 441-7744 FAX: (757) 441-7183		8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE See Item 7 TEL: FAX:		
9. FOR INFORMATION CALL:	A. NAME SUSAN I HURST		B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> (757) 441-7747	
SOLICITATION				
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".				
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS <i>(Title, identifying no., date):</i> Maintenance Dredging Winter Harbor, Mathews County Virginia. Maintenance Dredging the Winter Harbor Channel and Turning Basin by hydraulic pipeline method to a depth of 6 feet CELW with 1 foot of allowable overdepth. This procurement is a SMALL BUSINESS SET-ASIDE POC Susan Hurst 757-441-7747 757-441-7183 fax susan.i.hurst@usace.army.mil				
11. The Contractor shall begin performance within <u>15</u> calendar days and complete it within <u>80</u> calendar days after receiving <input type="checkbox"/> award, <input checked="checked" type="checkbox"/> notice to proceed. This performance period is <input checked="checked" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. (See FAR 52.211-10 .)				
12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO			12B. CALENDAR DAYS 10	
13. ADDITIONAL SOLICITATION REQUIREMENTS: A. Sealed offers in original and <u>1</u> copies to perform the work required are due at the place specified in Item 8 by <u>14:00:00</u> (hour) local time <u>1/8/02</u> (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due. B. An offer guarantee <input checked="checked" type="checkbox"/> is, <input type="checkbox"/> is not required. C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference. D. Offers providing less than <u>90</u> calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.				

SOLICITATION, OFFER, AND AWARD (Continued)*(Construction, Alteration, or Repair)***OFFER (Must be fully completed by offeror)**14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*15. TELEPHONE NO. *(Include area code)*16. REMITTANCE ADDRESS *(Include only if different than Item 14)***See Item 14**

CODE

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS

SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS*(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

AMENDMENT NO.

DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN
OFFER *(Type or print)*

20B. SIGNATURE

20C. OFFER DATE

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

SEE SCHEDULE

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN
*(4 copies unless otherwise specified)***ITEM**

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

☐ 10 U.S.C. 2304(c)☐ 41 U.S.C. 253(c)

26. ADMINISTERED BY

CODE

27. PAYMENT WILL BE MADE BY

CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)*

Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED
TO SIGN *(Type or print)*31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA
BY

31C. AWARD DATE

SECTION 00010 Solicitation Contract Form

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1.00	Lump Sum		
	Mobilization and Demobilization				
	FFP - Mobilization and Demobilization				
	PURCHASE REQUEST NUMBER W26GLG-1323-0806				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002		1.00	Lump Sum		
	Placement Area Preparation				
	FFP - Placement Area Preparation				
	PURCHASE REQUEST NUMBER W26GLG-1323-0806				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		168,100.00	Cubic Yard		

Maintenance Dredging

FFP - Maintenance Dredging Winter Harbor Channel and Turning Basin to a Depth of 6 feet CELW with one foot of allowable Overdepth, complete, including all associated work as indicated and specified

Quantity is estimated

NET AMT

TOTAL CLINS 0001 through 0003

CLAUSES INCORPORATED BY REFERENCE:

252.209-7003 Compliance With Veterans' Employment Reporting Requirements MAR 1998

SECTION 00100 Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE:

52.204-6	Data Universal Numbering System (DUNS) Number	JUN 1999
52.214-1	Solicitation Definitions--Sealed Bidding	JUL 1987
52.214-3	Amendments To Invitations For Bids	DEC 1989
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	MAR 1997
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-12	Preparation Of Bids	APR 1984
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.225-10	Notice of Buy American Act/Balance of Payments Program	FEB 2000
52.232-38	Requirement--Construction Materials	
52.232-38	Submission of Electronic Funds Transfer Information with Offer	MAY 1999

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed price contract resulting from this solicitation.

(End of clause)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from US Army Corps of Engineers, Norfolk District (CENAO-SS-C), 803 Front Street, Norfolk VA 23513

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:

Name: **Stephen Powell**
Address: **US Army Corps of Engineers**
Norfolk District

Telephone: 803 Front St
Norfolk VA 23513
757-441-7788

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

[www://arnet.gov/far/](http://arnet.gov/far/)

E4LC CONSTR 02 AWARD TO RESPONSIBLE OFFEROR

Responsibility will be determined, prior to award, by the Contracting Officer, either by performing a pre-award survey or conclusions based on a previous pre-award survey and/or any performance data available. A pre-award survey will be performed and the offeror will be required to show that he has the necessary capital, experience, and owns or can procure the necessary plant or other resources to commence the work at the time prescribed in the specifications and thereafter to prosecute and complete the work safely and satisfactorily within the time specified.

E4LC CONSTR 03 AMOUNT OF BID OR OFER GUARANTEE

Bid or offer guarantee in a penal sum of 20 percent of the bid price or \$3,000,000, whichever is the lesser, will be required if the bid or offer price is in excess of \$25,000. If the guarantee is submitted in the form of a bid bond, Standard Form 24 will be used and the bond penalty may be expressed in terms of a percentage of the bid or offer price or may be expressed in dollars and cents.

E4LC CONSTR 04 EVIDENCE OF AUTHORITY TO SIGN OFFERS

Evidence of the authority of individuals signing offers to submit firm offers on behalf of the offeror is required except where the offer is signed, and shows that it is so signed, by: the President, Vice-President, or Secretary of an incorporated offeror; a partner in the case of a partnership; or the owner in the case of a sole proprietorship. Failure to submit with the offer satisfactory evidence of the authority of all other persons may be cause for rejection of the offer as invalid or nonresponsive.

E4LC CONSTR 05 PREAWARD SAFETY CONFERENCE

a. Where an apparent low bidder, in performance of contracts during the previous three-year period, incurred one or more accidents, or where, in the opinion of the Contracting Officer, there is any question regarding this compliance with any safety or accident prevention requirement, such bidder, on request of the Contracting Officer prior to any award under this solicitation, shall attend a conference with representatives of the Contracting Officer to discuss any such accidents or non-compliance, the reason for their occurrence, and measures which will be taken to preclude any recurrence thereof.

b. Information elicited at this conference will be used by the Contracting Officer, in conjunction with other information obtained in a preaward survey, in determining the bidder's responsibility.

c. The items discussed, the preventive measures considered, and any conclusions reached in this conference shall be recorded in minutes of the meeting, which shall be authenticated by the signatures of representatives of the bidder and the Contracting Officer, and any procedures noted therein as agreed upon shall become an obligation of the bidder, along with all other safety and accident prevention requirements of the contract, if award is made to him.

E4LC CONSTR 06 INSPECTION OF THE SITE

Prospective bidders are invited to visit the site of the work in order to acquaint themselves as to site conditions and other problems incident to the prosecution of the work. Arrangements for inspection of the site shall be made through the Office the the Area Engineer identified in the clause 52.236.27, entitled "SITE VISIT (CONSTRUCTION)."

E4LC CONSTR 08 MAGNITUDE OF CONSTRUCTION PROJECT

The estimated contract price of the work for this project is
between \$ 500,000.00 and \$ 1,000,000.00.

E4LC CONSTR 09 BASIS OF AWARD

All blanks must be filled in by the bidder. A single award will be made to the lowest responsible, responsive bidder on the basis of the total price bid. Prior to making an award, a pre-award survey will be made and the low bidder will be required to show that he has the necessary capital, experience, and owns or can procure the necessary plant to commence the work at the time prescribed in the specifications and thereafter to prosecute and complete the work safely and satisfactorily within the time specified.

E4LC CONSTR 10 UNBALANCED OFFERS

Any offer which is materially unbalanced as to prices for the Base Items and the Optional Items may be rejected as non-responsive or otherwise not considered for award.

An unbalanced offer is one which is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

E4LC CONSTR 23 INCURRING COSTS

The Government is not liable for any costs incurred by the offeror submitting an offer in response to this solicitation.

E4LC CONSTR 24 AWARD TO RESPONSIBLE OFFEROR

Responsibility will be determined, prior to award, by the Contracting Officer, either by performing a pre-award survey or conclusions based on a previous pre-award survey and/or any performance data available. A pre-award survey will be performed and the offeror will be required to show that he has the necessary capital, experience, and owns or can procure the necessary plant or other resources to commence the work at the time prescribed in the specifications and thereafter to prosecute and complete the work safely and satisfactorily within the time specified.

52.0000-4009

CONTRACTOR PERFORMANCE AND BANKING INFORMATION

1. Prior to awarding a contract, the Government must conduct a PRE-AWARD SURVEY of the firm selected for award. In order for us to minimize delays in conducting the survey and awarding the contract, you are requested to provide the following information with your offer:

- a. BANK: Branch/Location
 Point-of-Contact
 Telephone Number/Fax Number

Please contact the bank in advance so they will release the necessary information regarding average balances in your operating accounts, lines of credit, and credit history.

- b. 3 CURRENT PROJECTS OF SIMILAR SCOPE AND SIZE:

- Project Title/Contract Number
- Customer
- Point-of-Contact
- Telephone Number/Fax Number
- \$ Value
- % Complete
- Scheduled Completion Date

- c. 3 COMPLETED PROJECTS OF SIMILAR SCOPE AND SIZE:

- Same as CURRENT PROJECTS; however, in lieu of "% Complete" and "Scheduled Completion Date," provide "Completion Date."

- d. DO NOT PROVIDE VOLUMINOUS LISTINGS OF YOUR FIRM'S CONTRACTING HISTORY.

2. If you wish to shield this information from public view at the bid opening, the information may be placed in an envelope with the following legend:

PRE-AWARD SURVEY INFORMATION
SOLICITATION NO. _____
<YOUR FIRM'S NAME>

SECTION 00600 Representations & Certifications

CLAUSES INCORPORATED BY REFERENCE:

52.203-11	Certification And Disclosure Regarding Payments To Influence Certain Federal Transactions	APR 1991
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	MAR 1998

CLAUSES INCORPORATED BY FULL TEXT

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

“Common parent,” as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

“Taxpayer Identification Number (TIN),” as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN:_____

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

- ☐ Sole proprietorship;
☐ Partnership;
☐ Corporate entity (not tax-exempt);
☐ Corporate entity (tax-exempt);
☐ Government entity (Federal, State, or local);
☐ Foreign government;
☐ International organization per 26 CFR 1.6049-4;
☐ Other _____

(f) Common parent.

☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

☐ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (APR 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals --

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within the three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property;

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision; and

(D) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(E) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(D) of this provision.

(ii)(A) The offeror, aside from the offenses enumerated in paragraphs (a)(1)(i)(A), (B), and (C) of this provision, has () has not () within the past three years, relative to tax, labor and employment, environmental, antitrust, or consumer protection laws--

(1) Been convicted of a Federal or state felony (or has any Federal or state felony indictments currently pending against them); or

(2) Had a Federal court judgment in a civil case brought by the United States rendered against them; or

(3) Had an adverse decision by a Federal administrative law judge, board, or commission indicating a willful violation of law.

(B) If the offeror has responded affirmatively, the offeror shall provide additional information if requested by the Contracting Officer; and

(iii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 2001) ALTERNATE I (OCT 2000) & ALTERNATE II (OCT 2000)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 23499 .

(2) The small business size standard is **\$27,500,000**.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(6) (Complete only if offeror represented itself as small business concern in paragraph (b)(1) of this provision). The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

() Black American.

() Hispanic American.

() Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

() Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

() Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern --

(1) That is at least 51 percent owned by one or more women; in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.219-2 EQUAL LOW BIDS. (OCT 1995)

(a) This provision applies to small business concerns only.

(b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) ☐ It has, ☐ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ☐ It has, ☐ has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

☐ (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

[] (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

[] (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

[] (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

E4LC CONSTR 01 CORPORATE CERTIFICATE

Note: Contractor, if a corporation, should cause the following certificate to be executed under its corporate seal, provided that the same officer shall not execute both the contract and the certificate.

CERTIFICATE

I, _____, certify that I am _____ of the

corporation named as Contractor herein, that _____, was then the

_____ of said corporation; that said contract was duly signed for and in behalf of said

corporation of authority of its governing body, and is within the scope of its corporate powers.

(Name of Corporation)

(Signature)

(Corporate Seal)

E4LC CONSTR 18 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING

(a) The Offeror is requested to enter its CAGE code in the space provided below. The CAGE code entered must be for that name and address.

(b) If the Offeror does not have a CAGE code, it may ask the Contracting Officer to request one in accordance with the provisions of DFARS 52.204-7001 in the section of this solicitation entitled "Instructions to Bidders."

(c) Do not delay submission of the offer pending receipt of a CAGE code.

CAGE Code: ____ _

() UNKNOWN

E4LC CONSTR 26 SMALL BUSINESS STANDARD FOR DREDGING

(a) FAR 52.219-1, SMALL BUSINESS PROGRAM REPRESENTATION, provides the SIC Code and small business size standard for dredging.

(b) Additionally, to be considered small, a firm must perform at least 40% of the yardage with its own dredging equipment or equipment owned by another small dredging firm.

SECTION 00700 Contract Clauses

CLAUSES INCORPORATED BY REFERENCE:

52.202-1 Alt I	Definitions (May 2001) --Alternate I	MAY 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 1997
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-13	Time Extensions	SEP 2000
52.211-18	Variation in Estimated Quantity	APR 1984
52.214-26	Audit and Records--Sealed Bidding	OCT 1997
52.214-27	Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding	OCT 1997
52.214-28	Subcontracting Cost Or Pricing Data--Modifications--Sealed Bidding	OCT 1997
52.214-29	Order Of Precedence--Sealed Bidding	JAN 1986
52.219-6	Notice Of Total Small Business Set-Aside	JUL 1996
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-14	Limitations On Subcontracting	DEC 1996
52.222-3	Convict Labor	AUG 1996
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis -Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	FEB 1999
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Affirmative Action For Disabled Veterans And Veterans of the Vietnam Era	APR 1998
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Disabled Veterans And Veterans Of The Vietnam Era	JAN 1999
52.223-6	Drug Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	OCT 2000
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000

52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.228-1	Bid Guarantee	SEP 1996
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-15	Performance and Payment Bonds--Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	JAN 1991
52.229-5	Taxes--Contracts Performed In U S Possessions Or Puerto Rico	APR 1984
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 1997
52.232-17	Interest	JUN 1996
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-27	Prompt Payment for Construction Contracts	MAY 2001
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-1	Disputes	DEC 1998
52.233-3	Protest After Award	AUG 1996
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-21 Alt I	Specifications and Drawings for Construction (Feb 97) - Alternate I	APR 1984
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	AUG 1987
52.244-6	Subcontracts for Commercial Items	MAY 2001
52.246-12	Inspection of Construction	AUG 1996
52.246-21	Warranty of Construction	MAR 1994
52.247-34	F.O.B. Destination	NOV 1991
52.248-3	Value Engineering-Construction	FEB 2000
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	SEP 1996
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Sep 1996) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense- Contract-Related Felonies	MAR 1999
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001
252.205-7000	Provisions Of Information To Cooperative Agreement Holders	DEC 1991

252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.225-7012	Preference For Certain Domestic Commodities	AUG 2000
252.225-7031	Secondary Arab Boycott Of Israel	JUN 1992
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts	SEP 2001
252.227-7033	Rights in Shop Drawings	APR 1966
252.236-7000	Modification Proposals -Price Breakdown	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	MAR 2000
252.246-7000	Material Inspection And Receiving Report	DEC 1991
252.247-7023	Transportation of Supplies by Sea	MAR 2000
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000
252.248-7000	Preparation Of Value Engineering Change Proposal	MAY 1994

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **15** calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than **80 calendar days**. The time stated for completion shall include final cleanup of the premises.

NOTE: Should the total quantity of material to be paid for and actually removed under this contract exceed the quantity from the bidding schedule, additional time will be allowed at the rate of one calendar day for each 3,000 cubic yards in excess of the estimated quantity.
(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$350.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
27.4%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is **Mathews County VA**

52.225-9 BUY AMERICAN ACT --BALANCE OF PAYMENTS PROGRAM—CONSTRUCTION MATERIALS (FEB 2000)

(a) Definitions. As used in this clause--

Component means any article, material, or supply incorporated directly into construction materials.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) and the Balance of Payments Program by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:
NONE

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act or Balance of Payments Program applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act or Balance of Payments Program applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....
Domestic construction material...
Item 2			
Foreign construction material....
Domestic construction material...

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

[www://arnet.gov/far](http://www.arinet.gov/far)

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Title	File	Drawing No.
Specifications	Winter Harbor	per table of contents
Drawings	H-223-10-31	3 sheets

(End of clause)

E4LC CONSTR 27 REQUIREMENT FOR "PAYMENT AND PERFORMANCE BONDS" OR
"PAYMENT BONDS ONLY"

If the resulting contract is awarded for an amount in excess of \$100,000, the contractor shall be required to provide both payment and performance bonds in accordance with FAR 52.228-15, "Performance and Payment Bonds--Construction." FAR 52.228-15 applies only to those contracts awarded for

an amount in excess of \$100,000.

If the resulting contract is awarded for an amount in excess of \$25,000 but no more than \$100,000, the contractor shall not be required to provide a performance bond. The required payment bond shall be provided in accordance with FAR 52.228-13, "Alternative Payment Protections." FAR 52.228-13 applies only to those contracts awarded for an amount in excess of \$25,000 by no more than \$100,000.

Neither payment nor performance bonds are required for contracts awarded for an amount less than \$25,000.

SECTION 00800 Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

General Decision Number VA010026

General Decision Number VA010026

Superseded General Decision No. **VA000026**

State: Virginia

Construction Type:
DREDGING

County(ies):
STATEWIDE

DREDGING CONSTRUCTION PROJECTS (Excluding HOPPER DREDGING)

Modification Number	Publication Date
0	03/02/2001

COUNTY(ies):
STATEWIDE

ENGI0025J 02/01/1998

	Rates	Fringes
HYDRAULIC DREDGES 20" & OVER		
Leverman	16.91	3.41+a
Engineer	16.09	3.41+a
Derrick Operator	14.97	3.41+a
Electrician	15.25	3.41+a
Carpenter	14.89	3.41+a
Mate	13.91	3.36+a
Welder	14.35	3.36+a
Spill Barge Operator	14.56	3.36+a
Spider Barge Operator	14.56	3.36+a
Tug Master	13.74	3.41+a
Tug Mate	13.18	3.36+a
Tug Deckhand	10.26	3.31+a
Steward	11.27	3.31+a
Oiler	10.95	3.31+a
Deckhand	10.26	3.31+a
Shoreman	10.07	3.31+a
Second Cook	10.26	3.31+a
Messman	10.07	3.31+a
CLAMSHELL DREDGES:		
Operator	16.83	3.41+a
Engineer	15.26	3.41+a
Welder	14.14	3.36+a

Mate	13.62	3.36+a
Oiler	10.95	3.31+a
Deckhand	10.26	3.31+a
Launchman	10.95	3.31+a
Scowman	10.40	3.31+a
Handyman	10.26	3.31+a

TUGS TENDING CLAMSHELL

DREDGES:

Tug Master	15.29	3.41+a
Tug Mate	13.44	3.41+a
Engineer	14.68	3.41+a
Assistant Engineer	13.27	3.41+a
Deckhand	10.12	3.31+a
Cook	10.40	3.31+a

STEWARD DEPARTMENT ON

CLAMSHELL DREDGES:

Cook	10.01	3.31+a
Mess Cook	9.42	3.31+a
Messman & Janitor	9.28	3.31+a

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Good Friday, Labor Day, Thanksgiving Day, Christmas Day. Plus Vacation contribution of 7% of straight time pay for all hours worked.

SUVA2041A 11/01/1994

	Rates	Fringes
HYDRAULIC DREDGES UNDER 20":		
Leverman	14.53	2.96+a
Engineer	14.18	2.96+a
Derrick Operator	13.20	2.96+a
Electrician	13.45	2.96+a
Carpenter	13.14	2.96+a
Mate	12.39	2.96+a
Welder	12.78	2.96+a
Spill Barge Operator	12.97	2.96+a
Spider Barge Operator	12.97	2.96+a
Tug Master	12.29	2.96+a
Tug Mate	11.76	2.96+a
Steward	10.42	2.96+a
Oiler	10.12	2.96+a
Deckhand	9.50	2.96+a
Tug Deckhand	9.50	2.96+a
Shoreman	9.32	2.96+a
Second Cook	9.50	2.96+a
Messman	9.32	2.96+a
Rodman	9.50	2.96+a
Handyman	9.50	2.96+a
Night Cook	9.50	2.96+a
Janitor/Porter	9.50	2.96+a

DIPPER DREDGES:

Operator	14.59	2.96+a
Engineer	14.04	2.96+a
Welder	12.78	2.96+a
Mate	12.39	2.96+a
Oiler	10.12	2.96+a
Deckhand	9.50	2.96+a
Launchman	10.12	2.96+a
Scowman	9.63	2.96+a
Rodman	9.50	2.96+a
Handyman	9.50	2.96+a

TUGS:

(Tending Dipper Dredges)

Tug Master	13.16	2.96+a
Engineer	12.96	2.96+a
Tug Mate	11.87	2.96+a
Assistant Engineer	11.75	2.96+a
Deckhand	9.37	2.96+a
Cook	9.63	2.96+a

STEWARD DEPARTMENT:

(On Dipper Dredges)

Cook	9.27	2.96+a
Mess Cook	8.74	2.96+a
Messman and Janitor	8.61	2.96+a

DRILL BOATS:

Engineer	14.18	2.96+a
Blaster	13.69	2.96+a
Driller	13.69	2.96+a

FOOTNOTES APPLICABLE TO ALL ABOVE CRAFTS:

a. PAID HOLIDAYS AND VACATION:

New Year's Day, Memorial Day, Independence Day, Good Friday, Labor Day, Thanksgiving Day, and Christmas Day; plus vacation contribution of 7% of straight time pay for all hours worked.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can

be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
END OF GENERAL DECISION

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of TBD has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The contracting officer will promptly notify the contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the contractor shall give written notice to the contracting officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the contractor, by written notice delivered to the contracting officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the contractor, to reduce said reservation by the amount of such excess.

(End of clause)

following Section 00800, identified as VA010026.

E4LC CONSTR 12 REQUIRED INSURANCE

The contractor shall procure and maintain during the entire period of performance under this contract, the following minimum insurance:

TYPE	AMOUNT
Workers Compensation	As required by State law
Employer's Liability	\$100,000 per person
General Liability	\$500,000 per occurrence
Motor Vehicle Liability (for each motor vehicle):	
Bodily injury or death	\$200,000 per person \$500,000 per occurrence
Property damage	\$20,000 per occurrence

Prior to commencement of work hereunder, the contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than 30 days after written notice thereof to the Contracting Officer.

E4LC CONSTR 13 PERFORMANCE OF WORK BY CONTRACTOR

Offeror's attention is directed to FAR 52.236-1, "Performance of Work by Contractor." Contractor is required to furnish a description of the work which will be performed by his own organization, (e.g., earthwork, paving, etc.), the percentage of the total work this represents, and the estimated cost thereof. Such description of work to be performed by the contractor's own organization shall be provided to the Contracting Officer within 10 days of contract award.

E4LC CONSTR 14 PERFORMANCE EVALUATION OF CONTRACTOR

As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluations may be prepared at any time during contract performance when determined to be in the best interest of the Government. The format for the evaluation will be DD Form 2626, and the Contractor will be rated either "Outstanding," "Satisfactory," or "Unsatisfactory" in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised on any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation; all contractor comments will be made a part of the official record. In compliance with DOD FAR Supplement 236.201, Performance Evaluation Reports will be available to all DOD Contracting Offices for their future use in

determining contractor responsibility.

E4LC CONSTR 16 ACCIDENT PREVENTION PLAN

In accordance with the clause entitled "Accident Prevention," the contractor will not be allowed to commence work on the job site until an acceptable accident prevention plan has been submitted. The contractor will receive official notification of the acceptance of his accident prevention plan.

SECTION 01005

SPECIAL WORK REQUIREMENTS AND RESTRICTIONS

12/01

PART 1 GENERAL

1.1 Special Work Requirements

The Contractor shall perform the scheduled work with a hydraulic dredge and pipeline and place the dredged material in the Government-furnished upland and shoreline placement areas as indicated. All dredging, transport and placement of dredged material under this contract shall be in compliance with all conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit, the Virginia Marine Resources Permit, and the Mathews County Wetlands Board Permit that are included as a part of this contract at the end of SECTION 01355 ENVIRONMENTAL PROTECTION. The contract plans and specifications have been prepared to comply with these permits which were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior approved in writing by the Contracting Officer, and any non-compliance with or violation of the conditions stated in the permits, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the permits noted herein may result in revocation of the permits for the project and may result in criminal and civil penalties against the Contractor. The Contractor shall not exceed a dredging depth to 9 feet below Corps of Engineers low water (CELW) as established by the Norfolk District. The Contractor shall not place dredged material on the shoreline placement area between the period of 16 March through 30 November.

1.1.1 Security and Public Safety of Work Areas

The dredging and placement areas are accessible to the general public; however, the Government will not undertake to exclude the public or restrict public access to the site during the work. The Contractor shall fully comply with the provisions of OSHA safe working practices and the Safety and Accident Prevention requirements of these specifications. The

Contractor shall employ the use of signs, barricades, barriers, flagmen, and any other devices and measures required to assure public and worker safety at the dredging and placement areas at all times. Unless directed otherwise, the Contractor may perform the scheduled work 24 hours a day, 7 days a week. All lighting associated with the project shall be limited to the immediate area of active construction only. Such lighting shall be shielded, low-pressure sodium vapor lights directed to the maximum extent practical away from populated areas and to avoid excessive illumination of the water.

1.1.2 Noise Control and Abatement

The Contractor shall employ the use of properly installed and maintained mufflers, silencers, and manufacturer's recommended sound suppressors on all plant, machinery, and equipment used on this work. The use of sound signals such as whistles, horns, or bells shall not be used if two-way radio communication can accomplish the required function. The Contractor shall not use sound signals, with the exception of those signals required for vessel operations by the U.S. Coast Guard, during the time between sunset and sunrise.

1.1.3 Cooperation with Other Contractors

During the period of this contract, other contracts may be in force for the construction of other features of work on or adjacent to the site of work being accomplished under this contract. The Contractor shall arrange his plant, and shall schedule and perform this work, so as to effectively cooperate with all other contractors and Government agencies.

1.1.4 Coordination Between Contractors

It shall be the responsibility of the Contractor on this contract to be fully informed of the extent of the limits of work to be performed by other contractors. Should there be any conflict between these limits, the Contractor shall immediately notify the Contracting Officer of the conflict, and the Contracting Officer's decision shall be final.

1.1.5 Order of Work

The Contractor shall accomplish the dredging at Winter Harbor in the following order:

- (a) Station 44+00 through Station 80+00 first

(b) Station 0+00 through Station 44+00 second

All dredging work shall be completed and accepted in Stations 44+00 through Station 80+00 prior to commencing any dredging work at Stations 0+00 through 44+00.

1.2 NOTIFICATIONS OF INTENT TO DREDGE AND REPORTS OF DREDGING

Notifications giving the dates and locations the Contractor intends to start dredging shall be prepared and sent to the agencies as specified below for each respective agency. Upon completion of each dredging item, the Contractor shall prepare a Report of Dredging giving all data as indicated and sent to the Virginia Department of Environmental Quality as specified. When the Contractor sends a Notification or Report to a respective agency, a copy shall at the same time be furnished to the Contracting Officer. The Contractor shall include the Virginia Water Protection (VWP) Permit Number on all Notifications and Reports.

1.2.1 Notification of Dredging to the Virginia Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482, in writing, at least 15 calendar days prior to commencement of dredging operations under this contract. The Contractor shall include the Virginia Water Protection (VWP) Permit Number on all correspondence and reports sent to the Department of Environmental Quality.

1.2.2 Report of Dredging to the Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482, in writing, within 30 calendar days of completion of dredging operations for each channel item. The Contractor shall include in the Report the following information to the Virginia Department of Environmental Quality:

(a) Date on which dredging operations started.

(b) Date on which dredging operations were completed.

(c) Amount of material dredged (in cubic yards).

1.2.3 Notification of Intent to Dredge to Virginia Marine Resources Commission - Habitat Management Division

The Contractor shall notify the Virginia Marine Resources Commission, Habitat Management Division, 2600 Washington Avenue, Post Office Box 756, Newport News, Virginia 23607-0756, in writing, at least 15 calendar days prior to commencement of dredging operations under this contract. The Contractor shall at the same time furnish a copy of the notice to the Contracting Officer. The Contractor shall include the Virginia Marine Resources Commission (VMRC) Permit Number on all correspondence and reports sent to the Virginia Marine Resources Commission.

1.3 PHYSICAL DATA

1.3.1 Physical Conditions Information

The physical conditions indicated on the drawings and in the specifications are the result of site investigations and surveys. Information and data furnished or referred to below is furnished for the Contractor's information; however, it shall be expressly understood that the Government will not be responsible for any interpretation or conclusion drawn from this information or data by the Contractor.

1.3.2 Weather Conditions Information

Complete weather forecasts, records and reports may be obtained from the National Weather Service in Wakefield, Virginia, telephone (757) 899-4200, Menu selection service or operator assisted as applicable. The Contractor shall satisfy himself as to the hazards likely to arise from the weather conditions during the dredging period.

1.3.3 Weather/Physical Conditions

The location of portions of the Winter Harbor channel are exposed to the Chesapeake Bay; therefore, the large fetch in the Easterly direction can result in wind and wave conditions that may cause suspension of work in the Channel. The approximate mean range of tide for the work area is 1.5 feet.

Tidal currents at any of the respective work areas are not of sufficient velocity to interfere with dredging operations.

1.3.4 Condition of Dredging Areas

The plans for dredging show the condition of the dredging area at the dates shown. There are not any known cables, pipes, bridges, or tunnels that cross the areas to be dredged. The dredging areas may contain trash, debris, and small obstructions not shown on the plans for dredging. There are privately owned structures, bulkheads, piers, docks, mooring piles, and other existing items in proximity to the areas to be dredged, and are in various conditions ranging from total deterioration to properly maintained. The Contractor shall exercise due care in all dredging and attendant plant operations to prevent damage to all structures, bulkheads, piers, docks, mooring piles, and any other existing items that remain in the work area during dredging operations.

1.3.5 Obstruction of Channel

The Government will not undertake to keep the area of channels free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act, approved 3 August 1917.

The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractors' plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage.

Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under this contract in navigable water or on shore.

1.3.6 Responsibility

The Contractor shall hold and save harmless the United States, its officers, and employees from all claims that may arise as a result of the Contractor's negligence in connection with the work performed under the contract, from noncompliance by the Contractor with the provisions of the contract drawings and specifications, or from the instruction of the Contracting Officer.

1.3.7 Channel Traffic

The traffic in the area of the work is expected to consist of shallow-draft commercial vessels, small craft engaged in the seafood industry, and small to medium size pleasure craft. The traffic is not expected to cause significant delays in the progress of dredging operations.

1.3.8 Oyster Grounds

Leased and public oyster grounds are present in the project area and are depicted on the contract drawings. As part of the Contractor's responsibility to layout the work, the boundaries of the oyster beds in the vicinity of the work areas shall be marked in the field by the licensed Professional Engineer or Surveyor. The boundary points shall be physically located with stakes or pipe and marked with orange flagging prior to dredging operations. These markings shall be maintained during the duration of dredging and placement operations and removed upon completion of the scheduled work. The locations shown for the oyster grounds are based on information furnished by the Virginia Marine Resources Commission. In order to avoid damage to oyster grounds, the Contractor shall not allow personnel or the operation of plant and attendant vessels, including placement or traversing of pipelines, across the bounds of the public and private leased oyster and shellfish grounds, except as approved by the Contracting Officer. To the maximum extent practical, the Contractor's work operations over and in the vicinity of the oyster grounds shall be at high tide. The Contractor shall submit for approval in writing with a detailed plan the layout for the proposed pipeline from the dredge to where the pipeline enters the confined placement area. Any pipeline across the bounds of the public and private leased oyster and shellfish grounds shall be floating.

1.3.9 Submerged Aquatic Vegetation

Submerged Aquatic Vegetation (SAV) exists within the vicinity of work. In order to avoid damage to SAV, the Contractor shall not allow personnel or the operation of plant and attendant vessels, including placement or traversing of pipelines across the SAV, except as approved by the Contracting Officer. To the maximum extent practical, the Contractor's work operations over and in the vicinity of SAV shall be at high tide. The

Contractor shall submit for approval in writing with a detailed plan the layout for the proposed pipeline from the dredge to where the pipeline crosses SAV. Any pipeline across SAV shall be floating.

1.4 LAYOUT OF WORK AND SURVEYS

1.4.1 General

The Contractor shall be responsible for the layout of all work and have all markings placed in the field marked by a licensed Professional Engineer or Surveyor currently licensed in the Commonwealth of Virginia. The markings shall be placed in the immediate work areas only and shall be removed once a work area has been accepted. The Government will establish the tide staff gauge within vicinity of the respective dredging areas. The in-place markings shall be verified by the Government before dredging and dredged material placement operations commence. The Contractor shall provide the Contracting Officer written notice at least 14 calendar days in advance of commencement of dredging and dredged material placement operations to assure the completion of the initial Government verification review. The Government shall verify all remaining markings as the dredging and dredged material placement operations are allowed to proceed. As applicable, the Government will furnish within 14 calendar days of receipt of a written request by the Contractor, the corner point coordinates for each contract dredging area or acceptance section, and the coordinates and monument descriptions for the existing horizontal control within vicinity of the work areas.

All requests shall be addressed to U.S. Army Corps of Engineers, Norfolk District, Operations Branch, Navigation Support and Survey Section, CENAO-TS-ON, 803 Front Street, Norfolk, Virginia 23510-1096. Point of contact concerning this request is Chief, Navigation Support and Survey Section, telephone (757) 441-7125, or FAX (757) 441-7664. The Contractor shall be responsible for using this information to dredge within the areas and prisms as shown, and to deposit the dredged material at the locations indicated. The Contractor shall establish and maintain at his own expense all markings of the dredging and placement areas and shall remove same upon completion of the work. The contract completion time will not be extended due to failure of the Contractor to adequately establish and maintain his markings of the work areas.

1.4.1.1 Electronic Survey and Positioning Systems

When the Contractor utilizes electronic survey and positioning systems to perform dredging and dredged material placement operations, all work accomplished with the use of the systems shall be reviewed and certified as accurate by the Contractor's Quality Control Manager. This signed certification shall be submitted as a part of the Daily Report of Operations in accordance with the requirements of SECTION 01451 to assure that all work performed with the use of the equipment and systems meets contract requirements.

1.4.2 Before Dredging Survey

The Contractor shall give the Contracting Officer written notice at least 14 calendar days prior to arrival of the dredge plant at the first work area or acceptance section, and shall furnish written notice at least 14 work days in advance of need for subsequent before dredging surveys. It is understood that the surveys made in response to notice by the Contractor will constitute the before dredging survey and that any subsequent surveys occasioned through Contractor delays will be charged against the Contractor at a rate of \$3,000 per day. The Contracting Officer will not be responsible for any delays in the commencement of work caused by incomplete surveys if the Contractor fails to provide adequate advance written notice as specified.

1.4.3 Datum and Bench Marks

The plane of reference shall be Corps of Engineers Low Water (CELW) as established by the Norfolk District, as used on the drawing and in these specifications. The benchmark for Winter Harbor is as follows:

BENCHMARK: "WINTER"
ELEVATION: 8.46 feet above CELW

The benchmark is situated in Mathews County, Virginia. To locate the benchmark, from the intersection of State Route 14 and State Route 608, at the Port of Haywood, travel East on Route 608 and continue to the public boat ramp at Winter Harbor. The station must be reached by boat. From the ramp, follow the channel east approximately 5,000 feet to its entrance at the Chesapeake Bay. The station is located on the North bank

approximately 20 feet above the ground surface, 10 feet East of a one-inch iron pipe, and 88.83 feet Northeast of a wooden pile tripod.

1.4.4 Use of Coast Guard Navigation Aid Structures

The Commander, Fifth Coast Guard District, has authorized the Norfolk District, Corps of Engineers, and its Contractors to use fixed Federal aids to navigation structures, established and maintained by the U. S. Coast Guard, for support of temporary dredging tide gauges when performing Federal dredging operations. If a Contractor chooses to use navigation aid structures for this purpose, he shall abide by the following requirements:

a. The Contractor shall advise the Commander, Fifth Coast Guard District, Aids to Navigation Branch, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704, in writing, of his intention to attach tide gauges to navigation aid and structures, prior to commencing a dredging project. This notice shall include the name of each aid to navigation to which tide gauges are to be attached, and the anticipated dates the gauges will be attached and removed. A copy of this notice shall be furnished at this time to the Contracting Officer.

b. The Contractor shall be required to remove any temporary tide gauges immediately upon completion of dredging operations and demobilization of dredging plant. The Contractor shall at his expense repair or replace any aids that he has damaged or destroyed as a result of the Contractor's use of such aids.

c. This provision refers only to Federal aids to navigation structures and does not authorize the Contractor to utilize aids that are not established and maintained by the U. S. Coast Guard. This provision also does not authorize the Contractor to utilize Federal navigation aid structures for any purposes other than the support of temporary tide gauges.

1.5 ACCOMMODATIONS AND SUBSISTENCE ABOARD DREDGE FOR CONSTRUCTION REPRESENTATIVES

1.5.1 Accommodations

(a) Work Space - The Contractor shall furnish regularly

to Government construction representatives on board the dredge a suitable working and storage space, equipped and maintained to the satisfaction of the Contracting Officer or his representative. As a minimum the facilities shall include a desk with chair for plan study, and a file drawer, approximately 15" by 24", capable of being locked with a padlock. The working space need not be a separate room, but shall be properly lighted, ventilated, and heated.

(b) Cellular Telephone and FAX Machine - The Contractor shall provide a cellular phone and FAX machine aboard the dredge which shall be made available for official use by the Government Inspectors on a 24-hour a day basis to exclusively conduct Government business and emergency calls.

1.5.2 Subsistence

If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when required, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The meals furnished will be paid for by the Government at a rate of \$5.00 for breakfast, \$5.00 for lunch, and \$14.00 for supper.

1.5.3 Costs

The entire cost to the Contractor for furnishing, equipping, and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the Contracting Officer will secure the facilities referred to above, and their costs will be deducted from payments due to the Contractor.

1.6 INSPECTION

1.6.1 General

The presence of the construction representative shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any construction representative, the use of such boats,

boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the borrow work areas.

b. To furnish, on the request of the Contracting Officer or any construction representative, suitable transportation from all points within the beach fill placement area, to and from the various pieces of plant and the staging areas, and within the material placement area as may be reasonably necessary in inspecting and supervising the beach fill work. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and any resultant cost incurred by the government will be deducted from any amounts due or to become due the Contractor.

1.6.2 Hours of Work

The Contractor will be allowed to perform work 24 hours per day, seven days per week, including holidays, for the entire performance period. Precautions for night work shall be coordinated with the Job Hazard Analysis. Adequate lighting in compliance with all OSHA Regulations and Coast Guard Regulations for thorough inspection of night operations and public safety shall be provided by the Contractor at his expense.

1.7 CONTINUITY OF WORK

Payment will not be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such areas, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the area intervening. The Contractor may be required to suspend dredging at any time when for any reason the gages or ranges cannot be seen or properly followed.

1.8 SHOALING

1.8.1 Shoaling Prior to Dredging

The drawings and quantity estimates are based on the condition of the dredging area at the time of the most recent surveys; however, the actual quantities to be dredged will be computed from surveys made immediately before dredging. Any shoaling that has developed, subsequent to the surveys indicated on the drawings and contiguous to the areas indicated to be dredged under this contract, shall be removed by the Contractor at the contract unit price for dredging, including any applicable unit price adjustments if so directed by the Contracting Officer. Any such shoaling within contiguous areas will be included as part of the required dredging prism for the purposes of CONTRACT CLAUSE "VARIATION IN ESTIMATED QUANTITIES".

1.8.2 Shoaling Subsequent to Dredging

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished basin, because of the natural lowering of the side slopes, redredging at contract price, including any applicable unit price adjustments, within the limit of available funds, may be done if agreeable to both the Contractor and the Contracting Officer.

1.9 FINAL EXAMINATION AND ACCEPTANCE

As soon as practicable after the completion of the entire work or any portion of the work which in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dredging at the contract rate for dredging, but if the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived at the discretion of the Contracting Officer. The Contractor shall provide adequate advance notice to the Contracting Officer of the completion of dredging of each acceptance section to insure prompt performance of the after dredging acceptance surveys. The Contractor shall provide the notice in writing at least 10 calendar days in advance of anticipated completion of each section of work. If the Contractor fails to provide this advance notice, the

Contracting Officer will not be responsible for any delays caused by incomplete surveys. The Contractor will be notified when soundings are to be made, and may accompany the survey party. When the area is found to be in satisfactory condition, it will be accepted. Should more than two sounding operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding, the cost of such third and any subsequent sounding operations will be charged against the Contractor at the rate of \$3,000 per day for each day in which the Government Plant is engaged in sounding or is en route to or from the site or held at or near the said site for such operations. Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

1.10 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65-feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Secretary of the Army and the Commandant, U. S. Coast Guard.

1.11 SAFETY AND ACCIDENT PREVENTION

1.11.1 Safety Plan

The contractor shall not commence work at a job-site prior to the Government's review of an acceptable contractor accident prevention plan per the US Army Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1) and discussion of the accident prevention plan at a pre-work meeting. Allow five days for Government review of the accident prevention plan.

1.11.2 Conflicts

The Contractor shall comply with Occupational Safety and Health Act (OSHA) Standards, Coast Guard, as well as the Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1). When a conflict exists between Corps of Engineers Safety and Health Requirements Manual, nationally recognized consensus standards, or the contract plans and specifications, the most stringent requirements as determined by the Contracting Officer will govern.

1.11.3 Corps of Engineers Standards

Corps of Engineers Manual EM 385-1-1, 1996 edition, is hereby supplemented or revised as follows.

1.11.3.1 Activity Hazard Analysis

Based on the construction schedule, the Contractor shall submit an activity hazard analysis of each major phase of work prior to entering that phase of activity. The analysis shall include major or minor hazards, as well as commonly recurring deficiencies that might possibly be encountered for that operation, and shall identify proposed methods and techniques of accomplishing each phase in a safe manner. The Project Superintendent and the Corps of Engineers Project Inspector shall sign the analysis. A copy of the analysis shall be kept on the job site and reviewed with employees during orientation and during weekly safety meetings.

1.11.3.2 Means of Escape for Personnel Quartered, or Working on Floating Plant

Two means of escape shall be provided for assembly, sleeping, and messing areas on floating plant. For areas involving 10 or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where nine or fewer persons are involved, one of the means of escape may be a window (minimum dimensions 24 inches by 36 inches) that leads to a different exit route.

1.11.3.3 Emergency Alarms and Signals

(a) Emergency Alarms - Alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to be out of sight

or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical-system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

(b) Fire Alarm Signals - The general fire alarm signal shall be in accordance with Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels.

(c) Abandon Ship Signals - The signal for abandon ship shall be in accordance with the reference cited in (b) above.

(d) Man-Overboard Signal - Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

1.11.3.4 Hurricane Plan

A detailed plan for protection and evacuation of personnel and plant in the event of an impending hurricane or storm shall be submitted for approval as a part of the Contractor's Accident Prevention Program. The plan shall include as a minimum:

(a) The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.

(b) The safe harbor for personnel and plant specifically identified.

(c) The name of the boat that will be used to move the plant, its type, capacity, speed, and availability.

(d) The estimated time necessary to move the plant to the safe harbor after movement is started.

1.11.3.5 Equipment and Machinery Operator Authorization

The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and equipment.

The list shall be maintained at the job site in a current status at all times.

1.11.3.6 Head Protection (Hard Hat)

The entire work site under this contract is designated as a hard hat area. The Contractor shall post the area in accordance with the requirements of EM 385-1-1, and shall insure that all prime and subcontractor personnel, vendors and visitors utilize hard hats while within the project area.

1.11.3.7 Attendance at Safety Meetings

In order to allow for maximum attendance at weekly tool box (Safety) meetings, and monthly supervisor meetings by Corps of Engineers personnel, Contractors shall notify the Contracting Officer 5 calendar days prior to the start of work, of the time and location of all such scheduled meetings. The contractor shall keep minutes and provide copies to all parties attending.

1.11.4 Dredge and Attendant Plant

1.11.4.1 Equipment and Machines

All operable equipment and machines, shall be checked for:

- (a) Manufacturer's safety instructions, permanent-mounted and easily read.

- (b) Guard Rails and life-lines at overboard access areas, as applicable.

- (c) Cover exposed moving parts with safety-guards to prevent someone from accidentally stepping or falling on them.

1.11.5 Dozers, Front-End Loaders, Backhoes, and Other Wheeled-Tract Machines

Dozers, front-end loaders, backhoes, and other wheeled-tract machines operated on the beach shall be equipped with rollover protection and seatbelts. All rotating or reciprocating parts, and any parts subject to high operational temperatures that are of such nature or so located as to be or become a hazard to the operating or attending personnel, shall be substantially guarded and insulated to the extent necessary to

eliminate the hazard. Walking or working surfaces and platforms shall be of an anti-skid type.

1.11.5.1 Checks

All front end loader-backhoe machines and other machines, such as tractors that utilize a backhoe attachment, shall be checked for:

(a) Exposed backhoe boom swing foot pedals.

(b) Backhoe boom swing lever that can be reached by a man standing on the ground or on the outrigger support bracket.

1.11.5.2 Controls

Where these conditions exist, guards shall be fabricated to:

(a) Cover over exposed foot pedals to prevent someone from accidentally stepping on them.

(b) Enclose the swing lever so as to preclude operation from the ground or from the outrigger support bracket.

1.11.6 Crawler-, Truck-, and Wheel-Mounted Cranes

(a) When a crane is performing duty cycle work (such as clamshell, dragline, grapple, or pile driving) it does not require anti-two block equipment. If the crane is required to make a non-duty cycle lift (for example, to lift a piece of equipment, a tool box, or supplies), it will be exempt from the anti-two block equipment requirements if the following procedures are implemented:

(1) an international orange warning device (warning flag, warning tape, or warning ball) is properly secured to the hoist line at a distance of 8 to 10 feet above the hoist rigging;

(2) the signalperson (or an individual designated as the signalperson) acts as a spotter to alert the crane operator with a "STOP" signal when the warning device approaches the boom tip and the crane operator ceases hoisting functions when alerted of this; and

(3) while the non-duty cycle lift is underway, the

signal person shall not stand under the load, shall have no duties other than signalperson, and shall comply with the signaling requirements of EM 385-1-1;

(b) Anti-two block devices are always required when hoisting personnel by crane or derrick.

1.11.7 Diving Operations

All diving operations shall be planned in accordance with the Corps of Engineers Safety Manual EM 385-1-1 and must be limited to those tasks that cannot be accomplished in any other manner. The Contractor shall submit for approval all information which may affect the work to be accomplished, including divers names, medical examination reports, qualifications of all divers and top-side tenders to be employed in the diving operations, plant and equipment to be employed on the work, and a written dive plan with sketches and narrative descriptions for each phase of the planned dive.

1.12 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

1.12.1 Costs

Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a Contractor or subcontractor at any tier shall be based on actual cost data when the Government can determine both ownership and operating costs for each piece of equipment or equipment groups of similar serial and series from the Contractor's accounting records. When both ownership and operating costs cannot be determined from the Contractor's accounting records, equipment costs shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule", Region II. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect at the time the work was performed shall apply.

1.12.2 Rentals

Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36 substantiated by certified copies of paid invoices. Rates for equipment rented from an organization under common control, lease-purchase or sale-leaseback arrangements will be determined using the schedule except that rental costs leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees are allowable. Costs for major repairs and overhaul are unallowable.

1.12.3 Data

When actual equipment costs are proposed and the total amount of the pricing action is over \$25,000, cost or pricing data shall be submitted on the Standard Form 1411, "Contract Pricing Proposal Cover Sheet". By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

1.13 BRIDGE-TO-BRIDGE RADIO COMMUNICATION

In order that radio communication may be made with passing vessels, all dredges engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio telephone equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.65 megahertz with low power output having a communication range of approximately ten miles. The Federal Communications Commission has approved the frequency.

1.13.1 Radio

The Contractor shall provide the Government construction representative a portable radio capable of communicating with the dredge for the duration of work under this contract. The Contractor shall maintain the radio as required.

1.14 NOTIFICATION OF COAST GUARD

Prior to commencement of work on this contract, the Contractor shall notify the Commander, Fifth Coast Guard District of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least 5 work days prior to the commencement of this contract.

1.14.1 Local Notice To Mariners

The Local Notice To Mariners (LNM) for the Fifth Coast Guard District is available by phone at (757) 398-6367, on the Internet at: <http://www.navcen.uscg.mil/lnm/d5/default.htm>, and e-mail address: ntm/d5oan@internet.uscg.mil. The LNM is the primary means for disseminating information concerning aids to navigation, hazards to navigation, and other items of marine information of interest to mariners on the waters of the United States, its territories, and possessions. These notices are essential to all navigators for the purpose of keeping their charts, light lists, Coast Pilots and other nautical publications up-to-date. These notices are published weekly. They may be obtained free of charge, by making application to the Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704. If the Contractor encounters any objects on the channel bottom during dredging operations or transport of his plant that could be a hazard to navigation, he shall notify the Coast Guard immediately as to location and at the same time notify the Contracting Officer.

1.14.2 Navigation Aids

The Contractor shall not relocate or move any aids to navigation that has been established by the U.S. Coast Guard. If it becomes necessary to have any aid to navigation moved in order to complete dredging operations under this contract, the Contractor shall notify the U.S. Coast Guard in writing at the address above with a copy to the Contracting Officer not less than 15 calendar days prior to such need for movement. The Contractor shall notify the U.S. Coast Guard of the approximate time the navigation aid may be relocated to its original position. All notifications to the U.S. Coast Guard shall at the same time be provided to the Contracting Officer and recorded in the Daily Report of Operations. In the event that the Contractor disturbs or damages any navigation aid during work operations, which includes during mobilization or

demobilization of his plant, the Contractor shall immediately stop the activity which disturbed or damaged the navigation aid, take immediate corrective action to prevent further disturbances or damage, and shall notify the Coast Guard immediately as to location, and at the same time notify the Contracting Officer.

1.15 ENVIRONMENTAL LITIGATION

1.15.1 Litigation

If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof. The term "environmental litigation" means, a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

1.16 HISTORICAL AND ARCHAEOLOGICAL FINDS

Federal legislation provides for the protection, preservation, and collection of scientific, prehistoric, historic, and archaeologic data, including relics and specimens that might otherwise be lost as a result of any Federal construction project. Should the Contractor, or any of the Contractor's employees, or parties operating or associated with the Contractor, in the performance of this contract discover evidence of possible scientific, prehistoric, historic, or archaeologic data, the Contractor shall immediately cease work

at that location, and notify the Contracting Officer, giving the location and nature of the findings. The Contractor shall forward written confirmation to the Contracting Officer as directed. The Contractor shall exercise care so as not to disturb or damage shipwrecks, artifacts or fossils uncovered during excavation, dredging and material placement operations, and shall provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition. Any person who, without written permission, injures, destroys, excavates, appropriates, moves or removes any historic or prehistoric artifact, object of antiquity, or archaeologic resource is subject to arrest and penalty of law. Where appropriate by reason of discovery, the Contracting Officer may order delays in the time of performance or changes in the work, or both. If such delays or changes are ordered, an equitable adjustment will be made in accordance with the applicable clauses of the contract.

1.17 SCHEDULING AND DETERMINATION OF PROGRESS

In accordance with the Contract Clauses, the Contractor shall submit for approval a practicable Progress Schedule at the Pre-Construction Conference specified in SECTION 01200. The Progress Schedule shall be prepared and certified as complete by the Contractor's Quality Control Representative in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed, arrival date of Contractor's plant to the job site, all activities scheduled prior to dredging and beach fill operations, start and completion dates for each beach fill acceptance section, and calendar days to completion of all work. An arrow shall represent each activity in the construction. The head to tail arrangement of arrows shall flow from left to right and shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. Each arrow representing an activity shall be annotated to show the activity description and duration. Contractor shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. This schedule will be the medium through which the timeliness of the Contractor's construction efforts is

appraised. When changes are authorized that result in contract time extensions, the Contractor shall submit a modified chart for approval by the Contracting Officer. The Contract Clause entitled "SCHEDULE FOR CONSTRUCTION CONTRACTS" with reference to overtime and extra shifts, may be invoked when the Contractor fails to start or complete work features or portions of same by the time indicated by the milestone dates of the approved progress chart, or when it is apparent to the Contracting Officer from the Contractor's actual progress that these dates will not be met. Neither on this chart nor on the periodic chart that the Contractor is required to prepare and submit, as described in "SCHEDULE FOR CONSTRUCTION CONTRACTS" of the Contract Clauses, shall the actual progress to be entered include or reflect any materials that may be on the site, but are not yet installed or incorporated in the work. For payment purposes only, an allowance will be made by the Contracting Officer of 100 percent of the invoiced cost of materials or equipment delivered to the site but not incorporated into the construction, pursuant to Contract Clause "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS". The Contractor's progress schedule shall include a chart of the scheduled work activities plotting scheduled completion percentage based on dollar value on one axis and time on the other axis. The actual progress shall be plotted on the required periodic chart submittals to indicate the percentage of work scheduled and actually completed. When quantity volume variations for a respective beach fill acceptance section falls below or exceeds the projected amount by 5% or more, the Contractor shall revise the chart to accurately reflect the impact of such variations. The Contractor shall submit revised copies of the Progress Schedule with charted updates for completion of beach fill acceptance sections weekly unless directed otherwise by the Contracting Officer.

1.18 PROFIT

1.18.1 Weighted Guidelines

Weighted guidelines method of determining profit shall be used on any equitable adjustment change order or modification issued under this contract. The profit factors, expressed as a percent, shall be as follows:

Factor	Rate	Weight	Value
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Degree of Risk	20
Relative difficulty of work	15
Size of Job	15
Period of performance	15
Contractor's investment	5
Assistance by Government	5
Subcontracting	25
	100

1.18.2 Values

Based on the circumstances of each procurement action, each of the above factors shall be weighted from .03 to .12 as indicated below. The value shall be obtained by multiplying the rate by the weight. The value column when totaled indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

1.18.2.1 Degree of Risk

Where the work involves no risk or the degree of risk is very small, the weighting should be .03; as the degree of risk increases, the weighting should be increased up to a maximum of .12. Lump sum items will have, generally, a higher weighted value than the unit price items for which quantities are provided. Other things to consider: the portion of the work to be done by subcontractors, nature of work, where work is to be performed, reasonableness of negotiated costs, amount of labor included in costs, and whether the negotiation is before or after performance of work.

1.18.2.2 Relative Difficulty of Work

If the work is most difficult and complex, the weighting should be .12 and should be proportionately reduced to .03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Some things to consider: the nature of the work, by whom it is to be done, where, and what is the time schedule.

1.18.2.3 Size of Job

All work not in excess of \$100,000 shall be weighted at .12. Work estimated between \$100,000 and \$5,000,000 shall be proportionately weighted from .12 to .05.

1.18.2.4 Periods of Performance

Jobs in excess of 24 months are to be weighted at .12. Jobs of lesser duration are to be proportionately weighted to a minimum of .03 for jobs not to exceed 30 days. No weight where additional time not required.

1.18.2.5 Contractor's Investment

To be weighted from .03 to .12 on the basis of below average, average, and above average. Things to consider: amount of subcontracting, mobilization payment item, Government furnished property, equipment and facilities, and expediting assistance.

1.18.2.6 Assistance by Government

To be weighted from .12 to .03 on the basis of average to above average. Things to consider: use of Government owned property, equipment and facilities, and expediting assistance.

1.18.2.7 Subcontracting

Shall be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted, the weighting is to be .03 and such weighting proportionately increased to .12 where all the work is performed by the Contractor's own forces.

1.19 PARTNERING

In order to most effectively accomplish this contract, the Government is willing to form a cohesive partnership with the Contractor. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done correctly, within budget, and on time. This partnership would be bilateral in make-up and partnership will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by all parties and will be shared equally with no change in contract price.

1.20 SUBCONTRACTS AND WORK COORDINATION

Contract Clauses "SUBCONTRACTS", "PERMITS AND RESPONSIBILITIES", and "MATERIAL AND WORKMANSHIP" are supplemented as follows:

(a) Divisions or sections of specifications are not intended to control the Contractor in dividing the work among subcontractors, or to limit work performed by any trade.

(b) Contractor shall be responsible for coordination of the work of the trades, subcontractors, and materials.

(c) The Government or its representative will not undertake to settle any difference between the Contractor and Contractor's subcontractors, or between subcontractors.

(d) The Government reserves the right to refuse to permit employment on the work or require dismissal from the work of any subcontractor who, by reason of previous unsatisfactory work on Corps of Engineers projects, or for any other reason is considered by the Contracting Officer to be incompetent or otherwise objectionable.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

SECTION 01200

PROJECT MEETINGS

12/01

PART 1 GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Notification

An authorized representative of the Contracting Officer will schedule and conduct a preconstruction conference in conjunction with the Quality Control Coordination Meeting within ten calendar days of the anticipated start of construction. The Contractor is encouraged to have an officer of his Company at the conference. This conference will be held at a location specified by the Contracting Officer's authorized representative.

1.1.2 Purpose

The purpose of this preconstruction conference is to enable the Contracting Officer's authorized representative to outline the procedures that will be followed by the Government in its administration of this construction contract and to discuss the performance that will be expected from the Contractor. This conference will allow the Contractor an opportunity to ask questions about the Government's supervision and inspection of contract work, about regulations, and any other questions he may have prior to starting the work. The Contracting Officer's authorized representative may invite City of Virginia Beach and other Government personnel to attend this conference.

1.1.3 Topics

The following is a list of items and plans for discussion during this conference. This is not considered to be a complete listing and may be expanded or revised at the discretion of the Contracting Officer. The Contractor shall submit the following items and plans for approval prior to the preconstruction conference. All points of contact for submittal of the items and plans noted shall be provided in the Contractor's notice of award. Any questions the Contractor may have concerning the plans or program will be resolved at this meeting.

- a. Authority of the Contracting Officer's Representative and organization.
- b. Contractor's Safety Plan.
- c. Contractor's Quality Control Plan.
- d. Contractor's Environmental Protection Plan.
- e. Contractor's Progress Schedule - In the form of a bar chart showing all phases and dates for the progress of the scheduled work, including timeliness and basis of pre-construction and post-construction surveys, work acceptance requirements, and progress payments relative to conformance to the progress schedule.
- f. Correspondence Procedures.
- g. Contractor Labor Standards Provisions.
- h. Contractor Plan of Operations - The Contractor shall indicate his method(s) of layout and accomplishment of the scheduled work, and his verification/certification procedures for accuracy of the respective areas of work to be accomplished.
- i. Contract Modifications and Administrative Procedures.
- j. Contractor's Job Layout and Storage Area Plan.
- k. Procedures for Processing Shop Drawings, if applicable.
- l. Payment Estimate Data and Procedures.
- m. Contractor Utilities.
- n. Security Requirements and Other Regulations, if applicable.
- o. Government Furnished Equipment, if applicable.
- p. Disposition of Salvage Property.
- q. Contractor Insurance Requirements.
- r. Value Engineering Program.

- s. Contractor Performance Evaluation.
- t. Contractor's Environmental Control Plan including
 - (1) Spill Control Plan.
 - (2) Recycling and Waste Minimization Plan.
 - (3) Contaminant Prevention Plan.
- u. Contractor Required Notification Procedures.
- v. Contractor's Submittal Register.

1.1.4 Approvals

The Contractor shall submit his Safety Plan, Quality Control Plan, and Environmental Protection Plan for review prior to this meeting. These plans may be approved or approved with comments at the conference. Construction work shall not proceed until after this meeting has been held, all specified Plans have been approved, and the Notice to Proceed has been received and acknowledged by the Contractor.

1.1.5 Minutes of the Meeting

The Government will prepare legibly written or typed minutes of the meeting and will provide the Contractor with a signed original for review and concurrence. The minutes shall include all items discussed at the meeting and the Government will make all corrections provided by the Contractor and resubmit the corrected minutes to the Contractor within seven days.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01270

MEASUREMENT AND PAYMENT

12/01

PART 1 GENERAL

1.1 REFERENCES (Not Used)

1.2 SUBMITTALS (Not Used)

1.3 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.3.1 Base Bid Payment Item No. 0001 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of all of the Contractor's dredging plant and equipment as defined below will be paid for at the contract lump sum price for this item. Sixty percent of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent will be paid to the Contractor upon completion of demobilization. In the event the Contracting Officer considers that the amount in this item, sixty percent which represents mobilization and forty percent which represents demobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the Contracting Officer will result in payment of actual mobilization costs, as determined

by the Contracting Officer, at the completion of mobilization, and actual demobilization costs, as determined by the Contracting Officer, at the completion of demobilization. The determination of the Contracting Officer is not subject to appeal.

1.3.1.1 Mobilization

Mobilization shall include all costs for operations accomplished prior to commencement of actual dredging operations. This shall include transfer of dredge, attendant plant, and equipment to site, all initial installation of pipe, and any other associated work that is necessary in advance of the actual dredging operations.

1.3.1.2 Demobilization

Demobilization shall include general preparation for transfer of plant to its home base, removal of pipelines, cleanup of site of work including the placement area, and transfer of plant to its home base.

1.3.2 Base Bid Payment Item No. 0002 Preparation, Maintenance and Final Grading of Placement Area with Dike Height of 24 feet Above CELW

Payment for this item shall include all cost associated with the preparation, maintenance, and final grading of the placement area. The Contractor shall perform clearing, grubbing and disposal of all grubbed materials offsite, excavation and removal of earth and debris, demolition, removal and proper disposal of piping and spillbox, construction of dike including spillbox, drainage piping, accessway, and the ditching required for proper drainage at the outlet pipe, and operation of the spillbox for the duration of the contract.

1.4 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control,

environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.4.1 Base Bid Payment Item No. 0003 Dredging Winter Harbor Channel and Turning Basin

Payment to be made for costs associated with dredging shall include the cost of removal and placement of material as indicated and specified exclusive of the mobilization and demobilization, and placement area preparation and maintenance as defined above. The total amount of material removed and to be paid for under these payment items will be measured by the cubic yard in place by computing the volume between the bottom surface shown by soundings of the last surveys made before dredging, and the bottom surface shown by the soundings of surveys made as soon as practicable after the work has been completed. The volume for measurement and payment shall include the material within the limits of overdepth and side slopes described in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" of SECTION 02881, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Material", below. The drawings are believed to accurately represent conditions at the time of the surveys indicated. New soundings will be taken immediately before dredging. The Contractor's unit price for dredging, based on the above method of computation of the quantity for payment, shall include his evaluation of shoaling, other natural changes in the waterway, or changes caused by the Contractor's operations that might occur during the period between the surveys before dredging and the surveys for acceptance of the work. Computations for payment purposes will be made by the Government using the average end area method and electronic data processing machines. Determination of quantities removed and the deductions made to determine quantities in place to be paid for in the areas specified, after having once been made, will not be reopened except on evidence of collusion, fraud, or obvious error.

1.5 MISPLACED MATERIAL

Any material that is deposited elsewhere than in places designated or approved by the Contracting Officer will not be paid for, and the Contractor may be required to remove such misplaced material and deposit it where directed by the Contracting Officer at the Contractor's expense.

1.6 EXCESSIVE DREDGING

Material taken from outside the specific areas to be dredged or beyond the limits as extended in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" will be considered as excessive overdepth dredging, or excessive side slope dredging, for which payment will not be made. Nothing in these specifications shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of Paragraphs SHOALING and FINAL EXAMINATION AND ACCEPTANCE of SECTION 01005.

1.7 MONTHLY PARTIAL PAYMENTS

Monthly partial payments will be based on estimated quantities determined by the Contracting Officer.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES

12/01

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION AND CLASSIFICATION

The Contractor shall insure all submittals as required in the Contract are submitted to the government as identified and in accordance with the procedures specified in this Section. Submittals may be required for work features and procedures in the specifications that are not listed or classified as indicated below. The Contractor shall still be required to list these submittals in his Submittal Register as required by the respective specification, and designate the submittal and action required in the register.

1.1.1 Submittal Identification

Submittals required are identified by SD numbers and titles as follows:

- SD-01 Preconstruction Submittals
- SD-02 Shop Drawings
- SD-03 Product Data
- SD-04 Samples
- SD-05 Design Data
- SD-06 Test Reports
- SD-07 Certificates
- SD-08 Manufacturer's Instructions
- SD-09 Manufacturer's Field Reports
- SD-10 Operation and Maintenance Data
- SD-11 Closeout Submittals

1.1.2 Submittal Classification

Submittals are classified as follows:

a. Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the

Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

b. Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.2 APPROVAL OF SUBMITTALS

The approval of submittals by the Contracting Officer's Representative (COR), shall not be construed as a complete check, but will indicate only that the general method of construction, work scheduling, and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for the dimensions, layout, and satisfactory construction of all work as indicated and specified. After submittals have been approved by the COR, resubmittal for the purpose of changing the approved Work Plan, Progress Schedule, designated Acceptance Sections, or for any other reason, will not be given consideration unless accompanied by an explanation as to why a change is necessary.

1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the COR and promptly furnish a corrected submittal with the Daily CQC Report as specified for the initial submittal. If the Contractor considers any correction indicated on the submittal(s) to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be given at the same time to the COR.

1.4 WITHHOLDING OF PAYMENT

Payment for any part of the scheduled work accomplished by the Contractor, including transportation of the Contractor's plant to or from the site of the work, will not be made if required approvals for all parts of the scheduled work have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall submit all items required and specified in these specifications, and as may be required by other portions of the scheduled work. Proposed deviations from the contract requirements shall be clearly identified. The required submittals shall be listed in the Contractor's Work Plan and on the Contractor's Submittal Register Form 4288-R. All requirements of submittals shall be coordinated with SECTION 01451. Any questions regarding submittals required of the Contractor will be discussed at the Preconstruction Conference specified in SECTION 01200. At this Conference, and during the progress of the work, the COR may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Dimensions and units of weights and measures used on all submittals shall be the same as indicated and specified. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved as complete by the CQC representative as specified in SECTION 01451.

3.2 SCHEDULING

Submittals covering component items forming a system or items that are interrelated, such as access/egress to the work area, and delivery/storage of materials prior to construction of features shall be scheduled to be coordinated with the requirements specified and submitted concurrently.

3.2.1 Submittal and Report Identification

All submittals and reports shall be complete, properly marked, adequately detailed, and identified with location of occurrence in the respective specification section with paragraph number, drawing number and location, and respective Plan or Report requirement, as applicable. The Contractor's CQC representative shall sign and date each submittal and report as complete.

3.3 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this SECTION is a sample Submittal Register (ENG Form 4288-R) showing those plans, lists, and items of equipment and materials for which submittals are required by the specifications. The Contractor is informed this sample form may not list all submittals that may be required of the Contractor; however, the Contractor shall utilize this form as a guide to

provide, with his CQC Plan for approval, a complete Submittal Register listing all submittals required for the duration of the contract. The Submittal Register shall consist of individual pages representing the respective Specification Sections as shown in the attached sample. Columns "d" through "q" of the sample form indicate the method the Contractor is to use in identification of his submittals. In the respective Specification Sections and when so directed by specified requirements in other parts of the contract for a particular type of submittal, the Classification status to be inserted in Columns "p" and "q" is indicated. The Contractor's Quality Control Representative shall certify in writing as part of the CGC Plan the appropriate designation for all submittals has been made. The remainder of columns and how they are to be utilized during administration of the contract will be addressed at the Pre-Construction Conference as noted in SECTION 01200.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

At the end of this SECTION is a sample Transmittal Form (ENG Form 4025) which shall be used for transmittal coordination of all submittals. This form shall be completed by the Contractor identifying each item to be submitted. Special care shall be exercised to ensure proper listing of the date of the submittal transmittal, specification section and paragraph number pertinent to the data submitted for each item, and numerical sequence coordination with the Submittal Register Form 4288-R, Column "b".

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SECTION 01355

ENVIRONMENTAL PROTECTION FOR DREDGING

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328 Definitions

40 CFR 68 Chemical Accident Prevention Provisions

40 CFR 152-186 Pesticide Programs

40 CFR 260 Hazardous Waste Management System: General

40 CFR 261 Identification and Listing of Hazardous Waste

40 CFR 262 Standards Applicable to Generators of Hazardous Waste

40 CFR 279 Standards for the Management of Used Oil

40 CFR 302 Designation, Reportable Quantities, and Notification

40 CFR 355 Emergency Planning and Notification

49 CFR 171-178 Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(1996) U.S. Army Corps on Engineers Safety and Health Requirements Manual

WETLAND MANUAL Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

1.2 DEFINITIONS

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally, or historically.

1.2.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

1.2.3 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.4 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

1.3 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

1.3.1 Protection of Features

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause that are not specifically identified on the drawings or otherwise specified as environmental features requiring protection. The Contractor shall protect those environmental features as indicated and specified, in spite of interference that their preservation may cause to the Contractor's work under the contract.

1.3.2 Special Environmental Requirements (Permits)

This section supplements the Contractor's responsibility under the contract clause "PERMITS AND RESPONSIBILITIES" to the extent that the Government has already obtained environmental permits for the required dredging and dredged material placement. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development. All dredging, transport and placement of dredged material under this contract shall be in strict compliance with the conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit that is included as a part of this contract at the end of this SECTION. The contract plans and specifications have been prepared to comply with these permits which were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior approved in writing by the Contracting Officer, or any non-compliance with or violation of the conditions stated in the permit noted herein, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for any of these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the

permits noted herein may result in revocation of the permit for the project and may result in criminal and civil penalties against the Contractor.

1.4 ENVIRONMENTAL PROTECTION PLAN

As a part of the Contractor's Work Plan, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. This Environmental Protection Plan shall consist of a written narrative, as well as any supplemental drawings, documents, and photographs required to verify the Contractor's work will be in accordance with all laws and regulations governing the work as indicated and specified. The Contractor shall submit this plan and all supplementary data for approval at the Preconstruction Conference as noted in SECTION 01200. The Contractor will be informed in writing of any revisions as may be required by the Contracting Officer and submit a final plan for final approval not later than 5 calendar days prior to start of scheduled construction activities. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions that the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance by the Contracting Officer of the Contractor's Environmental Protection Plan covering the work to be performed. The environmental protection plan shall comply with the requirements of EM 385-1-1 and include, but not be limited to, the following:

1.4.1 List of State and Local Laws and Regulations

The Contractor shall provide, as part of the Environmental Protection Plan, a list of all State and local environmental laws and regulations that apply to the construction operations under the Contract.

1.4.2 Spill Control Plan

The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include

the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

a. The name of the individual who shall be responsible for implementing and supervising the containment and cleanup.

b. Training requirements for Contractor's personnel and methods of accomplishing the training.

c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who shall report any spills or hazardous substance releases and who shall follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center at 1-800-424-8802) if a reportable quantity spill occurs. The individual shall then immediately notify the DEQ Kilbuck Regional Office at (804) 527-5020 if the notification is being made between the hours of 8:15 a.m. and 5:00 p.m. Monday through Friday, or at (800) 468-8892 during all other times, if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.4.3 Recycling and Waste Minimization Plan

The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

a. The Contractor shall participate in State and local

government sponsored recycling programs to reduce the volume of solid waste materials at the source.

1.4.4 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.4.5 Environmental Monitoring

The Contractor shall include in the plan, as coordinated with the Job Hazard Analysis and required in the specifications, the details of environmental monitoring requirements and a description of how this monitoring will be accomplished under the laws and regulations governing the work.

1.4.6 Preconstruction Survey

The Contractor shall perform a survey of the project site with the Contracting Officer and take photographs showing existing environmental conditions in and adjacent to the site. The results of this survey shall be prepared by the Contractor and copies included in the plan. The preconstruction survey shall identify requirements for the following:

- a. Methods for protection of features to be preserved within authorized work areas like trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archaeological, and cultural resources.
- b. Procedures to be implemented to provide the required environmental protection, to comply with the applicable laws and regulations, and to correct pollution due to accident, natural causes, or failure to follow the procedures of the environmental protection plan.
- c. Location of the solid waste disposal area.
- d. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossings,

material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

e. Traffic control plan including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather and dredged material placement operations, and the amount of mud transported onto paved public roads by vehicles or runoff.

f. Methods of protecting surface and ground water during construction activities.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 Wetlands and Natural Habitat

Use of the Contractor's plant to construct the scheduled work, including the associated use of ropes, cables, or guys over wetlands and in natural habitat areas, shall be scheduled in a manner to disturb the marsh and natural habitat areas to the minimum necessary to accomplish the work. Heavy equipment use in wetlands must be avoided if at all possible. Any Contractor equipment used in wetlands shall be placed on mats, and as site conditions may warrant, any additional measures as required to minimize soil and plant root disturbance sufficient to preserve preconstruction vegetation density and grade elevations. All mats and other protective measures shall be removed as soon as the segment of work is completed. Any damage to wetlands or natural habitat areas shall be returned to its original contours and restored to original vegetative state within 30 days at no additional expense to the Government. The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the previously mentioned Federal, State or local laws or regulations, permits, and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action when approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspensions.

3.1.2 U.S. Department of Agriculture (USDA) Quarantined Considerations

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

3.1.3 Disposal of Solid Wastes

Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials. Solid waste shall be placed in containers and disposed on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste and dispose in compliance with Federal, State, and local requirements.

3.1.4 Disposal of Contractor-Generated Hazardous Wastes

Hazardous wastes are hazardous substances as defined in 40 CFR 261, or as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from Government property within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

3.1.5 Fuels and Lubricants

Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with Federal, State, and local laws and regulations. The Contractor shall not perform fueling or lubrication of any equipment while that equipment is on the beach.

3.2 PROTECTION OF WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.2.1 Monitoring of Water Areas Affected by Construction Activities

The Contractor shall perform monitoring, inspections, sampling and testing, reporting, and record keeping as indicated and specified.

3.3 INSPECTION

If the Contracting Officer notifies the Contractor in writing of any observed noncompliance with contract requirements or Federal, State, or local laws and regulations, the Contractor shall inform the Contracting Officer of proposed corrective action and immediately take such action to correct the noncompliance. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action is taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

3.5 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel as a part of the weekly toolbox meetings. The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall

also be discussed. Other items to be discussed shall include recognition and protection of archaeological sites and artifacts, wildlife and waterfowl habitats, and construction material placement operations.

3.6 PROTECTION OF MARINE ANIMALS, WILDLIFE AND VEGETATION

The Contractor is informed that the dredging areas are in a portion of Virginia frequented by migratory birds and is a native habitat for eagles, hawks, egrets, herons, pelicans, terns, and other wildlife that are identified as either threatened or endangered species protected by Federal law or species of special concern for Commonwealth of Virginia agencies. If, in the performance of this contract, evidence of the possible disturbance to any such migratory bird or listed species may occur, the Contractor shall notify the Contracting Officer immediately, giving the location and nature of the findings. The Contractor shall advise all personnel associated with the operation of the vessels and plant of the civil and criminal provisions of the Endangered Species Act, the Migratory Bird Act, and the Marine Mammal Protection Act. The Contractor shall comply with all laws and regulations governing the work and the provisions set forth in this Section. In the event that endangered or protected species are affected by this work, the work under this contract may be suspended or terminated as determined by the Contracting Officer. All crew members of the dredge and attendant plant operators shall be required to read and certify in writing they are aware of the contents of this specification and the Contractor's Environmental Protection Plan. Copies of this Section and the Environmental Protection Plan, including a posting warning of the civil and criminal liabilities that violators are subject to for non-compliance to the requirements of them, shall be clearly posted with other required postings on-site for employees.

3.6.1 Suspected Fish Kills

The Contractor shall immediately report any suspected fish kills to the Contracting Officer. The individual reporting the suspected fish kill shall then immediately notify the DEQ Kilmarnock Regional Office at (804) 527-5020 if the notification is being made between the hours of 8:15 a.m. and 5:00 p.m. Monday through Friday, or at (800) 468-8892 during all other times.

-- End of Section --

SECTION 01451

CONTRACTOR QUALITY CONTROL

12/01

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction". The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

1.1.1 Applicable Publications

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM D 3740 (1996) Minimum Requirements for Agencies
Engaged in the Testing and/or Inspection
of Soil and Rock as Used in Engineering
Design and Construction
- ASTM E 329 (1995b) Agencies Engaged in the Testing
and/or Inspection of Materials Used in
Construction

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated

therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

1.3 COORDINATION MEETING

As soon as practicable after receipt of Notice of Award and before start of the scheduled work, the Contractor shall meet with the Contracting Officer's Representative (COR) in coordination with the requirements of SECTION 01200 and discuss the Contractor's Quality Control (CQC) system. The Contractor's Project Manager, Submittals Clerk and Quality Control Manager, Dredge Captain and Plant Operators, and the Surveyor or Engineer to be employed by the Contractor to perform all surveys and layout of the work required of the Contractor shall attend this meeting. The Contractor is encouraged to have an officer of his company and representation from any major subcontractors at the conference. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the (CQC) operations, control activities, testing, administration of the system for both onsite and offsite, and the interrelationship of Contractor and Government control and surveillance. Minutes of the meeting will be taken and prepared by the Government, signed by both the Contractor and the COR, with signed copy provided to Contractor, which shall become a part of the contract file. There may also be occasions when subsequent conferences will be called to reconfirm understandings.

1.4 QUALITY CONTROL PLAN

1.4.1 General

Prior to start of the scheduled work operations, the Contractor shall furnish his CQC plan to the COR for acceptance. The CQC Plan the Contractor proposes to implement shall identify the personnel, procedures, instructions, records, and forms, and, as a minimum, shall include:

a. A description of the quality control organization, including a chart showing lines of authority by name with duties and responsibilities of their respective position, qualifications (in resume format), and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified.

b. The number, classifications, qualifications, duties, responsibilities and authorities of personnel. A copy of the

letter, signed by an authorized official of the firm, which describes the responsibilities and delegates the sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities, and shall furnish copies to the Government at the same time.

c. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person or laboratory responsible for each test (laboratory facilities will be approved by the CO).

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one

definable feature under a particular section. This list will be agreed upon during the coordination meeting.

1.4.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

1.4.3 Notification of Changes

After approval of the CQC plan, the Contractor shall notify the COR in writing of any proposed change to his CQC System.

1.4.4 Corrective Actions

If at any time the Government determines that the CQC system, personnel, instructions, controls, tests, or records are not providing scheduled work which conforms to contract requirements, action shall be taken by the Contractor to correct the deficient management.

1.5 QUALITY CONTROL ORGANIZATION

1.5.1 CQC Organizational Staffing

The Contractor shall provide a CQC organization staff which shall have complete authority to take any action necessary to ensure compliance with the contract. The CQC organization staff shall consist of a CQC system manager and supplemental staff as specified below, who shall answer to the Contractor's Project Manager. The Project Manager (who shall not be the project superintendent) shall be an executive member of the Contractor's organizational staff, and shall have supervisory powers over the CQC organization and the project superintendent. Following are the minimum requirements for the CQC organization staff. These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during dredging and dredged material placement operations. The actual strength of the CQC staff may vary during any specific period to cover the needs of the work.

1.5.1.1 CQC System Manager

The Contractor shall identify an individual within his organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall:

a. be an experienced construction management person with a minimum of five years experience in dredging and related beach fill work. This experience shall include successful completion of Course entitled "Construction Quality Management for Contractors". The Contractor shall complete this training within 30 calendar days of receipt of his Notice To Proceed. This course is offered periodically by the Corps of Engineers at an administrative cost not to exceed \$50.00 per person. Specific times and locations are available from the Norfolk District, Construction Operations Section, telephone (757) 441-7687.

b. be on the job site at all times during work operations and shall be employed by the Contractor.

c. be assigned as system manager but may have duties as the Project Superintendent in addition to quality control.

d. have an alternate who shall be identified in the plan to serve in the event of the CQC system manager's absence. CQC System Manager's period of absence may not exceed one week at any one time, and not more than fifteen workdays during a calendar year. The requirements for the alternate shall be the same as for the designated CQC System Manager.

1.5.1.2 CQC Supplemental Staff Personnel

When necessary for a proper CQC organization, the Contractor shall add additional staff at no cost to the Government. The staff shall be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the dredging operations. These individuals shall:

a. be employed by the Contractor, unless waived in writing by the Contracting Officer (CO). All CQC staff members shall be subject to interview prior to acceptance by the Contracting Officer.

b. assist and be responsible only to the CQC system manager. These personnel may perform other duties, but shall be

fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.

c. be physically present at the scheduled work site during work on their areas of responsibility.

d. have the necessary education and experience to ensure contract compliance and shall be responsible for assuring the Contractor's work complies with the contract requirements for their area of specialization.

1.5.2 Organizational Changes

The Contractor shall obtain the Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

1.6 SUBMITTALS

Submittals shall be accomplished as specified in Section 01330 SUBMITTAL PROCEDURES and as may be required in the respective specifications. The CQC Manager shall be responsible for certifying that all submittals are in compliance with the contract requirements.

1.7 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, including that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, mobilization and demobilization of the Contractor's plant, sitework and related operations, plant operations in conjunction with environmental monitoring and testing, and will be keyed to the proposed construction sequence. The controls shall be subject to the approval of the Contracting Officer and include at least three phases of control to be conducted by the CQC system manager for all definable features of work as follows:

1.7.1 Preparatory Phase

This phase shall be initiated after the Pre-Construction Conference, performed prior to beginning work on each definable feature of work, and shall include as a minimum the following:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract plans.
- c. A check to assure that all plant and equipment to be employed in the work has been tested, required documentation has been submitted, and their use on the work has been approved as specified.
- d. A check to assure that provisions have been made to provide required control inspection and testing.
- e. Examination of the respective work areas to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of approved equipment and plant to do the scheduled work is on hand and conforms to job requirements. A verification check to assure each item of plant and equipment is properly manned for the scheduled work.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for constructing the work, including repetitive deficiencies, and document construction tolerances and workmanship standards for each respective phase of work.
- i. A check to ensure that the portion of the plan and operations method for the work to be performed has been accepted by the Contracting Officer.
- j. The Government shall be notified at least forty-eight hours in advance of beginning any of the required action of the preparatory phase. The CQC system manager shall certify the requirements of this phase to be in accordance with contract requirements as a part of this notification. The results of the preparatory phase actions shall be documented by separate written minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

1.7.2 Initial Phase

This phase shall be accomplished at the beginning of each definable feature of work. The following shall be accomplished:

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory phase.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.

d. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

e. The Government shall be notified at least forty-eight hours in advance of beginning any of the required action of the initial phase. The CQC system manager shall certify the requirements of this phase to be in accordance with contract requirements as a part of this notification. The results of the initial phase actions shall be documented by separate written minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications. Exact location of initial phase inspections and verifications shall be indicated for future reference and comparison with follow-up phases.

f. The initial phase shall be repeated for each new crew to work on-site, when changes to approved plans or schedules are required, and any time acceptable specified quality standards are not being met.

1.7.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work is accomplished. The checks shall be made a matter of record in the Daily CQC Report documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by any preceding deficient work. The Contractor shall not build upon or conceal non-conforming work.

1.7.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted by the Contractor on the same definable features of work when directed by the COR.

1.8 TESTS

1.8.1 Testing Procedures

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product which conforms to contract requirements. The Contractor shall procure the services of an industry recognized testing laboratory or he may establish an approved testing laboratory at the project site. A list of tests which the Contractor understands he is to perform shall be furnished to the Contracting Officer. The list shall give the test name, specification paragraph containing the test requirements, and the personnel and laboratory responsible for each type of test. The Contractor shall perform the following activities and record and provide the following data:

(a) Verify that testing procedures comply with contract requirements.

(b) Verify that facilities and testing equipment are available and comply with testing standards.

(c) Check test instrument calibration data against certified standards.

(d) Verify that recording forms, including all of the test documentation requirements, have been prepared.

(e) Results of all tests taken, both passing and failing tests, shall be recorded on the Quality Control report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

1.8.2 Testing Laboratories

1.8.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils shall meet criteria detailed in \-ASTM D 3740-\ and \-ASTM E 329-\.

1.8.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge, equal to the cost of each recheck, to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

1.8.2.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

1.8.2.4 Transportation of Samples for Testing

Cost incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory or other place designated, as directed by the COR.

1.9 DOCUMENTATION

1.9.1 Current Quality Control Records

The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form, complete, legibly written or typed, and shall include factual evidence that required quality control activities and tests have been performed, including but not limited to the following:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed today, giving location, description, and by whom.
- d. Test and control activities performed with results and references to specifications/plan requirements. List deficiencies noted along with corrective action.
- e. Identify submittals reviewed, with contract reference, by whom, and action taken.
- f. Off-site surveillance activities, including actions taken.
- g. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- h. List instructions given/received and conflicts in plans and/or specifications.
- i. Contractor's verification statement.
- j. These records shall indicate a description of trades/workmen working on the project, the number of personnel working, weather conditions encountered, and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment utilized in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the COR daily within twenty-four hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1.9.2 Deficiency Tracking Log

The Contractor shall establish and maintain a daily formal deficiency tracking log that shall be kept at the job site. The log shall include as a minimum the following:

- a. Contract title and number.
- b. Deficient work (by an identification number).
- c. Description of corrective action(s).
- d. Date reported.
- e. Date corrected.
- f. Reported by.

1.10 NOTIFICATION OF NONCOMPLIANCE

The COR will notify the Contractor of any noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose of notification and be recorded in the Daily Report of Operations. If the Contractor fails or refuses to comply promptly, the COR may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.11 MEASUREMENT AND PAYMENT

Separate payment will not be made for any work performed under this section and all associated costs shall be included in the cost for all bid items.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

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SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

12/01

PART 1

1.1 SITE PLAN

The Contractor may use the disposal area for storage of materials and equipment; however, the location of Contractor storage, staging, and toilet facilities the Contractor may wish to utilize are subject to the approval of the Contracting Officer. The Contractor shall prepare a site plan indicating the proposed location and dimensions of any areas to be used by the Contractor, the type of facilities to be used, avenues of ingress/egress to the areas, and details of installation. Any toilet facilities used shall be fully self-contained.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

The Contractor is informed that utility services are not available in the work area and any such use or need by the Contractor shall be at his expense.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

SECTION 01850

DRAWING INDEX

The following drawings are included as a part to this Solicitation

Norfolk
District
File No.

Title

H-22-10-31
(in 3 sheets)

Winter Harbor Channel
Plans for Dredging
Survey of May and October 2001

Sketches

Base Sections BV, FV, SV, TV and Details A,
B, C, D, E, and F

(Note: The Sketches indicated above form a part of the contract and are included at the end of the Technical Specifications after SECTION 05120)

SECTION 02220

DEMOLITION

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

The work includes demolition of the existing spillbox in the dredged material placement area, including metal drainage pipe and all associated wood framing, and removal of resulting rubbish and debris. All demolished materials, rubbish and debris shall be removed from the construction site when demolition is complete and materials shall be disposed of as specified.

1.3 PROTECTION

1.3.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.3.2 Environmental Protection

The work shall comply with the requirements of Section 01355.

1.4 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.5 USE OF EXPLOSIVES

Use of explosives will not be permitted.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 EXISTING STRUCTURES

Existing concrete, metal and wooden spillbox construction, including concrete and metal outfall pipes and all associated construction apparatus, shall be completely removed.

3.2 FILLING

Holes and other openings from demolition operations shall be filled in accordance with Section 02235.

3.3 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or damage to such property after notice to proceed. All material demolished shall be removed from the site and disposed in approved landfills in accordance with all local laws and regulations.

3.4 CLEAN UP

Debris and rubbish shall be removed from the construction site and transported in a manner that prevents spillage. Local regulations regarding hauling and disposal shall apply.

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SECTION 02235
CLEARING, EXCAVATING, DIKE CONSTRUCTION
(Including Spillbox, Accessway and Drainage Piping),
AND FINISH GRADING

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)

ASTM A 760 (1997) Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains

ASTM F 547 (1977; R 1995) Definitions of Terms
Relating to Nails for Use with Wood and
Wood-Base Materials

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C2 (1995) Lumber, Timber, Bridge Ties and Mine Ties
- Preservative Treatment by Pressure Processes

AWPA C9 (1997) Plywood - Preservative Treatment by
Pressure Processes

AWPA M4 (1999) Standard for the Care of
Preservative-Treated Wood Products

AWPA P5 (1997) Standards for Waterborne Preservatives

1.2 SUBMITTALS

The Contractor shall make submittals for the following listed reports and certificates as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready

determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with SECTION 01451.

1.2.1 Plant Reports

Reports of inspections and tests, including analysis and interpretation of test results required to verify quality standards are met for materials provided.

1.2.2 Certificates of Compliance

Statement signed by an official authorized to certify on behalf of the manufacturer or supplier of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified in accordance with the contract specification.

1.2.3 Manufacturer's Instructions

The Contractor shall submit manufacturer's preprinted documents which graphically show relationship of various components of the work that describe installation of the respective product, schematic diagrams of systems and details of fabrication, layouts of particular elements for the location of installation, location and types of connections, and other relational aspects of the work.

1.3 CHARACTER OF MATERIALS

The materials to be excavated are predominately sandy (SP) materials which have historically been dredged from the nearby navigation channel and placed in the disposal area. Bidders are expected to examine the site of work and decide for themselves the character and state of the materials. The Contractor shall be fully responsible for his evaluation of character and state of the materials and his selection of equipment necessary to complete the construction of work specified.

1.3.1 Satisfactory Materials for Construction

All soils obtained from grading and excavating operations are

classified satisfactory for use in construction. Soils for this use shall be separated from all cut trees and vegetation, and any non-biodegradable trash and debris which is encountered during the clearing and excavating operations. The cut trees and other vegetation, and any non-biodegradable trash and debris which is encountered during the clearing and excavating operations, shall be removed from the site.

1.3.2 Unsatisfactory Materials for Construction

Cut trees and other vegetation, and any non-biodegradable trash and debris from clearing operations is classified as unsatisfactory and shall be removed from the construction site and disposed of in an approved landfill.

1.4 FIELD QUALITY CONTROL

The Contractor shall establish and maintain field quality control for clearing, excavating, ditching, pipe laying, and finish grading operations to assure compliance with contract requirements, and maintain records of the quality control for all construction operations including but not limited to the items indicated below:

- a. Lines, grades and tolerances
- b. Segregation of materials
- c. Disposal and stockpiling of materials
- d. Unsatisfactory materials
- e. Conditions that may induce seepage or weaken the finished piping foundation or earthwork
- f. Stability of excavations

Records of inspections and tests, as well as the records of corrective actions taken, shall be furnished to the Government in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

1.5 DELIVERY, STORAGE, AND HANDLING

1.5.1 Delivery and Storage

Materials delivered to site shall be inspected for damage, unloaded, and stored with a minimum of handling. Materials shall not be stored directly on the ground. The inside of pipes and fittings shall be kept free of dirt and debris. The Contractor shall have a copy of the manufacturer's instructions available at the construction site at all times and shall follow these instructions unless directed otherwise by the Contracting

Officer.

1.5.2 Handling

Materials shall be handled in a manner that ensures delivery to the trench in sound, undamaged condition. Pipe shall be carried to the trench, not dragged.

PART 2 PRODUCTS

2.1 DRAINAGE PIPE

ASTM A 760, zinc coated, Type I pipe with annular 2-2/3 by 1/2 inch corrugations, size as indicated.

2.2 CONCRETE AND STRUCTURAL STEEL

Concrete shall be provided in accordance with Section 03300. Structural steel and miscellaneous anchors and cables shall be provided in accordance with Section 05120.

2.3 FIBERGLASS GRATING

The grating shall be provided in a one-piece panel construction which incorporates a molded grid pattern with the tops of the bearing bars and cross bars in the same plane. The grating shall be manufactured using a pultruded process utilizing either an isophthalic polyester or a vinyl ester resin with ultra-violet (UV) inhibitor additives and provided in a nominal 4' x 8' panel. A synthetic surface veil shall be the outermost layer covering the exterior surface. After fabrication to dimensions indicated, all cut ends, holes and abrasions of the grating shall be sealed with a compatible resin coating approved by the manufacturer to prevent intrusion of moisture and premature fraying at the field cut edges. All exposed surfaces shall be smooth and true to form. All materials and equipment necessary for the fabrication and installation of the grating shall be stored before, during, and after shipment in a manner to prevent cracking, twisting, bending, breaking, chipping or damage of any kind to the materials or equipment, including damage due to over exposure to the sun. Any material which, in the opinion of the Contracting Officer, has become damaged as to be unfit for use, shall be promptly removed from the site of work, and the Contractor shall receive no compensation for the damaged material or its removal. Grating shall be shipped from the manufacturer, palletized and banded with exposed edges protected by cardboard to prevent damage in shipment.

2.3.1 Structural Requirements for Grating

The grating shall meet or exceed the following minimum loading requirements:

- Concentrated load pounds/foot of width - 1,300
- Deflection under concentrated load - 1,400
- Uniform load pounds/foot² - 650
- Deflection under uniform load - 1,700

Design of live loads on grating shall not be less than 100 pounds per square foot. Grating deflection at the center of the finished span shall not exceed 0.25 inch. Structural members shall be designed to support all applied loads. Deflection in any direction shall not be more than L/180 of span for structural members.

2.4 ACCESSWAY MATERIALS

2.4.1 Grading and Marking

2.4.1.1 Lumber

Lumber shall bear an AWPAs authorized gradestamp or grademark, recognized certification stamp, mark, or hammerbrand.

2.4.1.2 Plywood

Plywood shall bear the grademark or other identifying marks indicating grades of material and rules or standards under which produced, including requirements for qualifications and authority of the inspection organization.

2.4.2 Sizes

Lumber and plywood material sizes shall conform to requirements of the rules or standards under which produced. Unless otherwise specified, lumber shall be surfaced on four sides. Unless otherwise specified, sizes indicated are nominal sizes, and actual sizes shall be within manufacturing tolerances allowed by the standard under which the product is produced.

2.4.3 Treatment

All lumber and plywood members shall be treated. Exposed areas of treated wood that are cut or drilled after treatment shall receive a field treatment in accordance with AWPA M4.

2.4.3.1 Lumber

Lumber shall be treated in accordance with AWPA C2 with waterborne preservatives listed in AWPA P5 to a retention level of 0.40 pcf intended for ground contact and fresh water use.

2.4.3.2 Plywood

Plywood shall be treated in accordance with AWPA C9 with waterborne preservatives listed in AWPA P5 to a retention level of 0.40 pcf intended for ground contact and fresh water use.

2.4.4 Moisture Content

At the time lumber and plywood materials are delivered and when installed in the work their moisture content shall be: 4 inches or less nominal thickness, 19 percent maximum; 5 inches or more nominal thickness, 23 percent maximum in a 3 inch perimeter of the timber cross-section.

2.4.5 ACCESSORIES AND NAILS

Markings shall identify both the strength grade and the manufacturer. Accessories and nails used in the work shall be intended for exterior use and shall conform to the following:

2.4.5.1 Bolts: Lag, Toggle, and Miscellaneous Bolts and Screws

Type, size, and finish best suited for intended use. Finish options include zinc compounds, cadmium, and aluminum paint impregnated finishes.

2.4.5.2 Nails and Staples

ASTM F 547, size and type best suited for purpose; staples shall be as recommended by the manufacturer of the materials to be joined. For plywood, length of nails shall be sufficient to extend 1 inch into supports. In general, 8-penny or larger nails shall be used for nailing through 1-inch thick lumber and for toe nailing 2-inch thick lumber; 16-penny or larger nails shall be used for nailing through 2-inch thick lumber. Nails shall be galvanized. Nail spacing shall be sufficient to develop an adequate strength for the connection.

PART 3 EXECUTION

3.1 CLEARING AND DIKE CONSTRUCTION

All trees and other vegetation in areas to be excavated shall be removed to grade. The satisfactory soil material obtained from excavating and grading operations shall be used for construction of the dike as shown on the plans and as specified. Fill material for dike construction shall be compacted in lifts not to exceed 12 inches.

3.2 DIKE CONSTRUCTION

The satisfactory excavated soil material shall be used for construction of the dike as shown on the plans and specified. The alignment of the dike, along with typical section views showing horizontal details of required excavation and dike construction, are shown. The required dike shall be constructed to a minimum height elevation of +24.0 feet CELW. Dike height elevations above the +24.0 feet CELW are acceptable. The dike shall have a minimum top berm width of 6 feet and with 1-vertical on 2-horizontal side slopes. Upon completion of dredged material placement operations, the interior and exterior face and top of berm of the finished dike shall be seeded in two equal increments. Seeding operations shall be initiated within 48 hours after attaining the specified finished grading increment. The Contractor shall be responsible for selecting seeding materials and processes suited for the location of use and all work performed shall be in accordance with the manufacturer's printed recommendations.

3.3 SPILLBOX CONSTRUCTION

A new spillbox shall be constructed at the location shown on the plans. One effluent pipe shall be provided in accordance with ASTM A 760, zinc coated of Type I pipe with annular or helical corrugations, asphalt coated, 30-inch. The spillbox shall be anchored to an 8-foot by 8-foot, 18-inch thick concrete slab. The slab shall be formed and poured on top of a compacted earth foundation with six inches of gravel between the compacted earth and the slab. The concrete slab shall be anchored into the ground with four screw type anchors. The anchors shall be placed near each corner of the slab, approximately one foot from the edge of each adjacent side, and embedded a minimum of 12 inches into the slab after the slab is poured. A minimum of four L-brackets shall be welded to the spillbox and bolted to

the slab anchor bolts when the spillbox is set in place. The slab foundation and new spillbox shall be placed so that the invert elevation of the spillbox is at +14.5 feet CELW. New weir boards shall be installed up to a maximum +22.0 feet CELW elevation. Weir boards shall be treated in accordance with American Wood Preserves Institute Standard (AWPA) C2 with waterborne preservatives listed in AWPA P5 to a retention level recommended for water contact use. The spillbox shall also be further secured to the ground by four cables, each with cable couplings for adjusting cable tension, and eight screw type anchors. These cables shall extend from pad eye brackets welded to the middle of the spillbox to the anchors installed in the ground at an approximate angle of 45 degrees. The Contractor shall add additional anchoring to the spillbox and effluent pipe as necessary to prevent floating of these structures which may be caused by the Contractor's practices and procedures.

3.3.1 BACKFILL ADJACENT TO SPILL BOX

Backfill adjacent to spillbox shall be placed and compacted uniformly in such manner as to prevent wedging action or eccentric loading upon or against the structure. Slopes bounding or within areas to be backfilled shall be stepped or serrated to prevent sliding of the fill. During backfilling operations and in the formation of embankments, equipment that will overload the structure in passing over and compacting these fills shall not be used.

3.4 ACCESS WALKWAY

A walkway shall be constructed from the +24.0 feet elevation on the finished dike to the spillbox as indicated. The walkway shall be constructed with pressure treated wood or other materials approved by the Contracting Officer in writing. Walkway shall be treated in accordance with American Wood Preservers Institute Standard (AWPA) C2 with waterborne preservatives listed in AWPA P5 to a retention level recommended for water contact use. The walkway shall be framed and braced to provide safe access to the spillbox. The walkway shall have a minimum deck width of 4 feet and have well made continuous hand rails on both sides of the walkway deck. At the terminus of the walkway and the spillbox a stepladder shall be constructed on both sides from the deck to the ground. The contractor shall be responsible for the design and construction of the walkway, specifically including the framing, bracing, and sufficient footings. All work shall meet the requirements of the Life Safety Code and OSHA regulations.

3.5 FINISHED EXCAVATION, FILLS, AND EMBANKMENTS

Upon completion of dredging operations, all areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly smooth-graded. The finished surface shall be drained of all water pockets and graded reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade-grader operations, except as otherwise specified.

3.6 PROTECTION

Rip Rap and geotextile fabric shall be installed at the base of the outfall pipe to a level necessary to prevent scouring. Newly graded areas of the finished dike shall be protected from traffic and from erosion until seeded, and any settlement or washing away that may occur from any cause, prior to acceptance and approval of the established seeding, shall be repaired and grades reestablished to the required elevations and slopes. Reseeding in repaired grade areas shall be at the Contractor's expense. All work shall be conducted in accordance with the environmental protection requirements of the contract.

--END OF SECTION--

SECTION 02378

GEOTEXTILE FABRIC

12/01

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The current issues of the publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

American Society for Testing and Materials (ASTM)

- | | |
|--------|---|
| D 123 | Standard Terminology Relating to Textiles (1996a) |
| D 4354 | Sampling of Geosynthetic for Testing (1996) |
| D 4355 | Deterioration of Geotextile from Exposure to Ultraviolet light and Water (Xenon-Arc Type Apparatus) (1992) |
| D 4491 | Test Methods for Water Permeability of Geotextiles By Permittivity (1999) |
| D 4533 | Standard Test Method for Trapezoid Tearing Strength of Geotextiles (1991;R 1996) |
| D 4632 | Standard Test Method for Breaking Load and Elongation of Geotextiles (Grab Method) (1991;R 1996) |
| D 4751 | Standard Test Method for Determining Apparant Opening Size of a Geotextile (1999) |
| D 4833 | Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products (1988;R 1996) |
| D 4873 | Guide for Identification, Storage, and Handling of Geotextiles (1997) |
| D 4884 | Seam Strength of Sewn Geotextiles (1996) |

1.2 SHIPMENT AND STORAGE

During all periods of shipment and storage, the geotextile shall be protected from direct sunlight, ultra-violet rays, temperature greater than 140 degrees Fahrenheit, mud, dirt, dust, and debris. To the extent possible, the fabric shall be maintained wrapped in a heavy duty protective covering. All geotextile shall be labeled, shipped, stored and handled in accordance with ASTM D 4873.

PART 2 PRODUCTS

2.1 GEOTEXTILE

The geotextile shall be a woven pervious sheet of plastic yarn as defined by ASTM D 123. The geotextile shall meet the physical requirements listed in Table No. 1 of the specifications.

2.1.1 Geotextile Fiber

The geotextile fiber shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of polyolefins, polyesters, or polyamides. Stabilizers and inhibitors may be added to the base polymer if necessary to make the filaments resistant to deterioration due to ultra-violet light and heat exposure. Geotextile shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other, including the edges. The edges of the geotextile shall be finished to prevent the outer fiber from pulling away from the geotextile.

2.2 SEAMS

High strength thread shall be of a material meeting the chemical requirements given above for geotextile yarn and shall be used such that seam strength testing will conform to ASTM D 4884. The thread shall meet the ultraviolet and physical requirements of the geotextile, and the color shall be different from that of the geotextile. The seam strength shall be equal to the strength required for the geotextile as given for the required tensile strength (Table 1) of the unaged geotextile in any principal direction. Overlapping J-type seams, double sewed shall be used. The sheets of geotextile shall be attached at the factory or another approved location, if necessary, to form sections not less than 18 feet wide.

2.3 ACCEPTANCE REQUIREMENTS

All brands of geotextile and all seams to be used shall be accepted on the following basis. The Contractor shall furnish the Contracting Officer, in duplicate, a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the geotextile. The mill certificate or affidavit shall attest that the geotextile meets the chemical, physical and manufacturing requirements stated in this Specification. If requested by the Contracting Officer, the Contractor shall provide to the Government geotextile samples for testing to determine compliance with any or all of the requirements in this specification. When samples are to be provided, they shall be submitted a minimum of 30 days prior to the beginning of installation of the same geotextile.

All samples provided shall be from the same production lot as will be supplied for the contract, and shall be the full manufactured width of the geotextile by at least 10 ft. long, except that samples for seam strength may be a full width sample folded over and the edges stitched for a length of at least 5 feet. Samples submitted for testing shall be identified by manufacturers lot designation.

Table No. 1 - Physical Requirements (Note 2)

Physical Property	Test Procedure	Acceptable Values
Grab Tensile Strength (unaged geotextile) (Note 1)	ASTM D 4632	200 pound minimum in any principal direction
Breaking Elongation (unaged geotextile)	ASTM D 4632	15 percent minimum in any principal direction
Puncture Strength (unaged geotextile) (Note 1)	ASTM D 4833	80 pound minimum
Apparent Opening Size (AOS)	ASTM D 4751	No finer than the U.S. Standard Sieve No 50 and no coarser than the U.S. Standard Sieve No 30
Tear	ASTM D 4533	40 pound minimum in any

principal direction

Note 1 Unaged geotextile is defined as geotextile in the condition received from the manufacturer or distributor.

Note 2 All numerical values represent minimum average roll values (i.e., any roll in a lot should meet or exceed the minimum in the table).

PART 3 EXECUTION

3.1 INSTALLATION OF THE GEOTEXTILE

The geotextile shall be placed in the manner and at the locations shown on the drawings. At the time of installation, the geotextile shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation or storage. The surface to receive the geotextile shall be prepared to a relatively smooth condition free of obstructions, depressions, debris and soft or low density pockets of material. Erosion features such as rills and gullies shall be graded out of the surface before geotextile placement. The geotextile shall be placed with the long dimension parallel to the long axis of the structure and laid smooth and free of tension, stress, folds, wrinkles, or creases. The strips shall be placed to provide a minimum width of 36 inches of overlap for each joint.

3.1.1 Temporary Pinning

Temporary pinning of the geotextile to help hold it in place until the riprap is placed shall be allowed. The temporary pins shall be removed as the riprap is placed to relieve high tensile stress which may occur during placement of material on the geotextile.

3.1.2 Placement Procedure

The placement procedure requires that the length of the geotextile be approximately 15 percent greater than the slope length. The Contractor shall adjust the actual length of the geotextile used based on initial installation experience.

3.1.3 Geotextile Placement

The geotextile shall be protected at all times during construction from contamination by surface runoff and any geotextile so contaminated shall be removed and replaced with uncontaminated geotextile. Any damage to the geotextile during its installation or during placement of riprap shall be replaced by the Contractor at no cost to the Government. The work shall be scheduled so that the covering of the geotextile with a layer of the specified material is accomplished within 7 calendar days after placement of the geotextile. Failure to comply shall require replacement of geotextile. The geotextile shall be protected from damage prior to and during the placement of riprap or other materials. Before placement of riprap or other materials, the Contractor shall demonstrate that the placement technique will prevent damage to the geotextile. In no case shall any type of equipment be allowed on the unprotected geotextile.

---End of Section---

SECTION 02380

STONE PROTECTION

12/01

PART 1 GENERAL

1.1 REFERENCES

The following publication of the issue listed below but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

VDOT RBS Road and Bridge Specifications (2000)

1.2 SUBMITTALS

The Contractor shall make submittals for the following listed reports and certificates as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with SECTION 01451.

1.3.1 Plant Reports

Reports of inspections and tests, including analysis and interpreting of test results required to verify quality standards are met for materials provided.

1.3.2 Certificates of Compliance

Statement signed by an official authorized to certify on behalf of the manufacturer or supplier of a product, system or material, attesting that the product, system or material meets

specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified in accordance with the contract specification.

PART 2 PRODUCTS

2.1 GENERAL

All stone shall be hard, sound, durable stone of igneous origin and free from structural defects as approved by the Contracting Officer. The sources from which the contractor proposes to obtain the material shall be selected well in advance of the time when the material will be required in the work. Contractor shall notify Contracting Officer a minimum of 30 days prior to stone placement so that a possible site visit by Government personnel may be arranged to the source of stone. Contractor shall submit "certificates of compliance" and "plant reports" attesting to the compliance of the stone to the contract specification and VDOT Standards.

2.2 QUALITY

Suitable tests and service records shall be submitted and will be used to determine the acceptability of the stone materials.

In the event suitable test reports and a service record, that are satisfactory to the Contracting Officer, are not available, as in the case of newly operated sources, the material shall be subjected to such tests as are necessary to determine its

acceptability for use in the work. Tests to which the materials may be subjected include petrographic analysis, specific gravity, abrasion, absorption, wetting and drying, freezing and thawing, and such other tests as may be considered necessary to demonstrate to the satisfaction of the Contracting Officer that the materials are acceptable for use in the work. All tests will be made by and at the expense of the Contractor under the supervision of the Government.

2.3 STONE

Stone shall be of the sizes indicated and shall be durable and of suitable quality to insure permanence in the structure and in the climate in which it is to be used. It shall be free from defects that would tend to increase unduly its

deterioration from natural causes. The inclusion of objectionable quantities of dirt, sand, clay, and rock fines will not be permitted.

2.3.1 Riprap

The stone shall meet or exceed the minimum requirements of VDOT RBS Section 204, Grade B, and applicable portions of Section 414 for Dry Riprap, class as indicated.

2.3.2 Filter Stone

The stone shall meet or exceed the minimum requirements of VDOT RBS Section 203, size as indicated.

PART 3 EXECUTION

3.1 PLACEMENT OF STONE

Stone shall be placed in accordance with SECTION 02378 and VDOT RBS Section 414 as applicable. Stone shall be placed to its full course thickness at one operation and in such a manner to avoid displacing the underlayer material or puncturing the geotextile. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified. Placing stone by dumping into chutes or by similar methods likely to cause segregation of the various sizes will not be permitted. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source, by controlled dumping of successive loads during final placing, or by other methods of placement which will produce the specified results. The contractor shall maintain the stone until accepted and any material displaced by any cause shall be replaced at his expense.

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SECTION 02881

DREDGING

12/01

PART 1 GENERAL

1.1 PLANT

Plant and equipment employed on the dredging work shall be in satisfactory operating condition, capable of safely and efficiently performing the work as indicated or specified, and shall be subject to inspection and approval by the Government at all times. Equipment and machinery, including pipelines and supporting plant, shall be subject to inspection and approval by the Government and kept in good condition at all times. A complete listing of all dredging plant and machinery to be used in the work, including booster pumps, skiffs, barges, and other related equipment, shall be submitted. The listing shall include year and manufacturer, operational capacities, safety features, operating and licensing requirements for operators, and a description where and how the item of equipment or plant will be employed in the work. Any leaks or deficiencies shall be promptly and properly repaired. No reduction in the capacity of the plant, once inspected and approved by the Government to be sufficient for employment on the work, shall be made except by written permission of the Contracting Officer. The measure of the "capacity of Plant" shall be its actual performance on the work to which these specifications apply. The Contractor shall submit, as a part of the Work Plan and Quality Control Plan, the manufacturer's pump curve for each pump to be used during the project. This submittal shall be provided by the Contractor for the purpose of verifying his available plant capacity is sufficient to accomplish the scheduled work in accordance with all contract requirements. The submittal shall include the dredge's main pump, and if applicable, the ladder pump and any booster pump(s) to be used on the contract. If a substitution of equipment occurs during the contract, the pump curve of the new pump(s) shall be submitted at the time of substitution and recorded in the Daily Report of Operations. Each pump curve submitted shall be clearly designated with the dredge name, contract number, pump function (main pump, ladder

pump, or booster pumps) and pump size. The pump curves shall indicate each respective pump's performance (i.e., pump Hp, efficiency and rpm's) for water plotted against hydraulic head and discharge velocity and GPM's. All data provided must be accompanied with documentation verifying the pumps to be utilized in this work have provided this efficiency on previous work in conditions and for material to be removed similar to that to be accomplished for this contract. All floating plant and pipelines used as accessways or working platforms shall be equipped with walkways and guardrails conforming to Corps of Engineers Manual EM 385-1-1 and meet OSHA requirements for worker safety. All buoyant (plastic) dredge pipelines that are used on this contract shall be weighted or anchored securely to the bottom so that the pipeline will stay on the bottom, and marked with floats or buoys during daylight and amber lights during darkness to mark distinctly the entire length and course of the line.

1.2 CHARACTER OF MATERIALS

The material to be removed for the project is predominately sandy materials (sp) and silty clay (sc). Bidders are expected to examine the sites of work and decide for themselves the character of the materials. The records of previous investigations and dredging, as applicable, are available in the Operations Branch at the Norfolk District. The Government does not warrant the accuracy of the records of previous dredging. Local minor variations in the subsurface materials are to be expected and, if encountered, will not be considered as being materially different within the purview of Contract Clause "DIFFERING SITE CONDITIONS". The records of previous dredging are available in the Operations Branch, Norfolk District, Corps of Engineers, 803 Front Street, Norfolk, Virginia 23510-1096. Local minor variations in the subsurface materials are to be expected and if encountered will not be considered as being materially different within the purview of Contract Clause "Differing Site Conditions".

1.2.1 Obstruction Identification

The Contractor may encounter obstructions or other debris that is not identified and may pose a hazard to navigation. The Contractor shall advise the Contracting Officer immediately of any obstructions or other debris of this nature that is

encountered.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PLACEMENT OF EXCAVATED MATERIAL

3.1.1 General

The Contractor will be required to use the designated Government- furnished placement areas as indicated. The material excavated shall be transported and deposited by a hydraulic pipeline dredge to the placement areas as indicated and specified. The dredge pipeline shall be placed and advanced in a manner to traverse and disturb marsh, seagrass and wetlands to the minimum amount practicable. Ingress and egress of personnel and equipment to these marsh, seagrass and wetlands areas shall be scheduled to coincide with high tide to the maximum extent practicable. The Contractor shall install a baffle plate, diffuser, or other approved apparatus to the discharge end of the dredge pipeline that shall precisely control the placement of the dredged material and increase the settlement rate of the material to the maximum extent practicable. The Contractor shall comply with all terms and conditions of the Department of Environmental Quality (DEQ) Water Protection Permit, the Virginia Marine Resources Commission Permit, and the Mathews County Wetlands Board Permit that are included as a part of this contract at the end of SECTION 01355 ENVIRONMENTAL PROTECTION.

3.1.2 Beach Placement Area

The Contractor shall mark the placement area in the field with metal pipes driven a minimum of 2 feet below the existing sediment surface. The pipes shall protrude vertically up to minimum elevation of +4 feet above CELW and shall be painted bright orange. The pipes shall be placed every 100 feet along the beach placement area at both the mean high water line and the channelward limit of the beach berm. The Contractor shall have a licensed engineer or surveyor mark the +3 feet above CELW elevation on each of the pipes. The Contractor shall place all material dredged between station 44+00 and 80+00 onto the beach placement area. Placement of the material

shall commence at the Southern end of the placement area and proceed North construction the required berm until the dredging of the outer channel is completed. The Contractor shall employ a diffuser or similar apparatus on the end of the pipeline which will allow the material to be placed on the beach without eroding the existing sand. The Contractor shall only use low ground pressure equipment on the beach not weighing greater than 4,000 pounds. The Contractor shall ensure that the material is placed on the beach in a lift not to exceed one foot, measured vertically, above the existing beach material elevation for the area lying between the mean high water line and the landward limits of the placement area.

The Contractor shall take all steps necessary to minimize human activity of the beach during construction.

3.1.3 Upland Placement Area

The Contractor shall employ proper dredging and placement methods to ensure that the minimum adequate ponding depth is maintained and that a minimum of two feet of freeboard, measured at the minimum containment dike elevation, is maintained at all times. The Contractor shall immediately suspend dredging and placement operations in the event of any containment dike failure or if dike failure appears to be imminent. The Contractor may resume work only after suitable permanent repairs to the containment dike have been made. Any damages that result from the negligence of the Contractor to properly manage the dredged material placement and properly maintain the containment dikes shall be fully repaired by the Contractor at his own expense. The Contractor shall leave the placement site in a well maintained condition and ponded water depths shall be within the limits as specified. The spillbox shall be well maintained with the boards at the correct level and free of trash and debris at all times. The Contractor shall perform grading and ditching as necessary to eliminate undrained areas within the containment area. The Contractor shall submit his proposed placement plan as a part of the overall work plan and requirements of which shall be subject to approval of the Contracting Officer.

3.1.4 Water Quality Monitoring Controls

In addition to the requirements specified in paragraph "Control of Placement Area Effluent", the Contractor shall

take all precautions that in the opinion of the Contracting Officer may be necessary to minimize the escape of dredged material into the navigable waters. Water samples of nearby navigable waters shall be taken daily during dredging operations up current and down current from the dredge and placement area. Water samples shall be taken after each change in tidal current flow up current from the dredge and placement area. These samples shall serve as the benchmark water quality standard for which measurements of samples taken in the vicinity down current of the dredging and placement area shall be compared. Water samples from the water surface in the vicinity immediately down current of the placement area and at the spillbox shall be taken as often as necessary to conform to the requirements as specified. Water samples immediately down current from the dredge and placement area shall be taken not less than once during each respective tidal current flow, and samples at the spillbox not less than twice daily. Density tests shall be performed on all water samples as outlined in paragraph titled "Control of Placement Area Effluent", in a manner and at proposed locations as approved by the Contracting Officer. In the event a water sample taken down current from the dredge, down current from the vicinity of the placement area, or at the spill box proves to be greater than 2 grams per liter in excess of the density of the water sample taken up current in the vicinity of the area being dredged established as the benchmark water quality standard, dredging operations shall be stopped immediately or the discharge flow shall be reduced. Dredging can resume maximum operations once the difference in the density tests becomes less than 2 grams per liter. All samples taken shall be recorded by the Contractor and included with the Daily Report of Operations. The Contractor shall provide constant monitoring of the placement operations when dredging and material placement operations are in progress. Monitoring personnel shall have fully functional two-way radio communications with the dredge operator at all times when dredging is in progress. Frequent communication checks shall be made to assure proper material placement during dredging operations. In the event of any communications failure or improper material placement is determined, all dredging and placement operations shall be immediately suspended until communications are restored as approved by the Contracting Officer, or in the event of improper material placement, until proper material placement procedures are reestablished by the Contractor as approved by

the Contracting Officer. All costs resulting from suspensions of work as specified above shall be the responsibility of the Contractor and at no additional expense to the Government.

3.1.5 Warning Signs

The Contractor shall erect and maintain at his own expense suitable navigation warning signs at each end of a submerged pipeline and at any other points necessary to prevent hazards to navigation.

3.1.6 Examination of Pipeline

The pipeline, including connections used for a submerged line, shall be examined and determined to be in good condition to reasonably expect it to last throughout the job without wearing to the extent of allowing leaks.

3.1.6.1 Leaks

In the event that leaks occur anywhere in the pipeline, the Contractor will be required to immediately discontinue using the respective equipment until the leaks are stopped. The Contractor shall also be required to recover at no cost to the Government any material improperly placed because of a leak or leaks in the equipment.

3.2 PLACEMENT AREA CONTROL

All markings to be placed in the field by the Contractor for layout of the work, including but not limited to placement area control points, pipeline routes, and range markers and buoys, shall be provided by a professional engineer or surveyor licensed in the Commonwealth of Virginia. The in-place markings shall be verified by the Government before commencement of dredging and placement operations. The Contractor shall give the Contracting Officer a minimum 14 calendar day written notice in advance of commencement of dredging operations to assure the completion of the Government verification review of the in-place markings.

3.3 REQUIRED DREDGING PRISM, OVERDEPTH, AND SIDE SLOPES

3.3.1 Required Dredging Prism

Within the specific areas indicated to be dredged or areas approved by the Contracting Officer, the required dredging prism is defined by the required depths and applicable side slopes as indicated and specified. The actual quantity within the required dredging prism will be computed from the last surveys made before dredging.

3.3.2 Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the specific areas to be dredged to a depth of not more than one foot below the required depth will be estimated and paid for at the contract price.

3.3.3 Side Slopes

Material actually removed, within limits approved by the Contracting Officer, to provide for final side slopes not flatter than 1 vertical on 3 horizontal, but not in excess of the amount originally lying above this limiting side slope, will be estimated and paid for, whether dredged in original position or by dredging space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. In computing the limiting amount of side-slope dredging an overdepth of one foot measured vertically will be used.

3.3.4 Method of Obtaining Soundings

Soundings to determine the volume of material removed under this contract will be made with an Innerspace Technology, Inc. Model 448 Thermal Depth Sounder Recorder with an operating frequency of 208 kilohertz and a 3 degree beamwidth at -3db. The equipment will be calibrated by the bar/ball check or velocity probe method to compensate for variations of the velocity of sound in water.

3.3.5 Basis of Surveys

The Government hydrographic surveys shall be the sole basis for determining payment for dredging and final acceptance.

3.4 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for all dredging operations to assure compliance with contract requirements and record his inspections and tests under this system.

3.4.1 Inspections and Testing Requirements

Inspections and testing shall be the responsibility of the Contractor including but not limited to the following:

3.4.1.1 Control of Dredging Area and Placement Area Effluent

The Contractor shall take samples as often as required but at least twice daily. The density of the effluent shall be determined by a hydrometer or weight-volume method as hereinafter specified. The Contractor will have the option of the hydrometer method when settled solids are not present in the sample. When settled solids are present the weight-volume method shall be employed for density determinations. The same technique shall be used for making the water density determinations in the vicinity of the benchmark area as in the respective work areas. When the hydrometer is used, an instrument such as Fisher Brand #14-331-5C2, or approved equal, shall be used. When the weight-volume method is employed, a 1,000cc laboratory cylinder and a scale or balance capable of weighing the sample and cylinder to the nearest gram shall be used.

3.4.1.2 Equipment and Machinery Requirements

All measuring equipment, global positioning systems (GPS) and other electronic positioning systems, data plotting and recording equipment, and the procedures associated with each respective item of equipment, shall be subject to the approval of the Contracting Officer. Verification of current calibration for each respective item of equipment, as approved by the Contracting Officer, shall be provided by the Contractor prior to use of the equipment on the work. All records produced by the equipment shall be inspected and certified as complete by the Contractor's Quality Control Representative and included as a part of the Daily Quality Control Report.

3.4.1.3 Miscellaneous Inspections and Test Records

A copy of the records of all inspections and tests, as well as record of corrective action taken, shall be included in the Control Plan and furnished to the Contracting Officer as a part of the Daily Quality Control Report.

3.4.1.4 Inspection and Test Records

A copy of the records of inspections and tests, as well as record of corrective action taken, shall be provided to the Contracting Officer with the Daily Report of Operations.

3.4.1.5 Reporting and Certificates

All measuring, plotting, and recording equipment and procedures shall be subject to the approval of the Contracting Officer. Verification of their calibration, certified by the Contractor's Quality Control Representative, shall be furnished prior to use on the work. All records produced by the equipment shall be authenticated by the authorized representative of the Contractor and then provided to the Contracting Officer with the Daily Report of Operations.

3.4.1.6 Placement Area Inspections and Tests

Inspection for adequacy of placement area control discharge and advancement methods, inspection for any required placement area maintenance, and surveillance for breaks in piping or overflow of dredged material outside of placement area.

3.4.1.7 Photographic Documentation

The Contractor shall take color photographs of his dredging and placement operations, clearly depicting the operation of each piece of dredging, placement and supporting equipment used during this contract. The Contractor shall also take color photographs of each placement area prior to and following placement area operations. Two copies of each photograph shall be printed on 4" by 6" high quality photographic paper. The back of each photograph shall be permanently fixed with a paper label containing the date and time each photograph was taken, the project name, the permit number, the name of the person taking the photograph, a

description of the scene being photographed, and the signature of the person taking the photograph. One set shall be sent to the Virginia Department of environmental Quality Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482. One set of photographs with a copy of the transmittal letter shall also be furnished to the Contracting Officer at that time.

3.5 REPORTING REQUIREMENT

The Contractor shall prepare and maintain a Daily Report of Operations and furnish copies daily to the Contracting Officer. A copy of the form prescribed for recording the required information and any further instructions on the preparation of the report will be furnished at the preconstruction conference noted in Section 01005. The Contractor shall also furnish the following item daily to the Contracting Officer during dredging operations:

- (1) Copy of dredge leverman's log
- (2) Records of dredge pump vacuum and pressure gauge readings

SECTION 03300

CAST-IN-PLACE CONCRETE

12/01

PART 1 GENERAL

1.1 SUMMARY (NOT APPLICABLE)

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. The most recent issue of the publication in effect on date of solicitation shall govern the work.

AMERICAN CONCRETE INSTITUTE (ACI)

ACI 301 (1996) Standard Specifications for
 Structural Concrete

ACI 305R (1991) Hot Weather Concreting

ACI 306R (1991) Cold Weather Concreting

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 94 (1999) Ready-Mixed Concrete

ASTM C 1107 (1999) Packaged, Dry, Hydraulic-Cement
 Grout (Nonshrink)

1.3 GENERAL REQUIREMENTS

1.3.1 Strength Requirements

Concrete for all work shall have a 28-day compressive strength of 4000 pounds per square inch.

1.3.2 Air Entrainment

All concrete shall contain from 4 to 7 percent total air.

1.3.3 Slump

Slump shall be maximum 3-inches.

1.3.4

PART 2 PRODUCTS

2.1 CONCRETE INGREDIENTS

Concrete ingredients shall conform to ASTM C 94; type of cement used shall be type II.

2.2 CURING MATERIALS

ACI 301.

2.3 FORM MATERIALS

ACI 301.

2.4 REINFORCING

Reinforcing shall be deformed, Grade 60 steel conforming to ACI 301.

2.5 WATER

Water shall be potable.

2.6 NONSHRINK GROUT

Nonshrink grout shall conform to ASTM C 1107, Grade suitable for marine use, and shall be a commercial formulation suitable for the proposed application.

PART 3 EXECUTION

3.1 FORMWORK

ACI 301.

3.2 INSTALLATION OF REINFORCING

ACI 301.

3.3 BATCHING, MIXING AND TRANSPORTING CONCRETE

The work shall conform to ASTM C 94, ACI 301, ACI 305R, and ACI 306R, except as otherwise specified.

3.4 PROTECTION

ACI 301.

3.5 FINISHING CONCRETE

3.5.1 Formed Surfaces

Smooth form finish.

3.5.2 Top of Slabs

Lightly-trowled finish. Provide a broomed texture.

3.6 CURING AND PROTECTION

ACI 301.

3.7 TESTING AND ACCEPTANCE OF CONCRETE

ACI 301.

SECTION 05120

STRUCTURAL STEEL

12/01

PART 1 GENERAL

1.1 SUMMARY (NOT APPLICABLE)

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC ASD Manual (1989) Manual of Steel Construction
Allowable Stress Design

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 36 (1997a) Carbon Structural Steel

ASTM A 123 (1997a) Zinc (Hot-Dip Galvanized) Coatings
on Iron and Steel Products

ASTM A 307 (1997) Carbon Steel Bolts and Studs, 60,000
psi Tensile Strength

ASTM A 325 (1997) Structural Bolts, Steel, Heat-
Treated, 120/105 ksi Minimum Tensile
Strength

ASTM A 653 (1997) Steel Sheet, Zinc-Coated
(Galvanized) or Zinc-Iron Alloy-Coated
(Galvannealed) by the Hot-Dip Process

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1 (1998) Structural Welding Code - Steel

STEEL STRUCTURES PAINTING COUNCIL (SSPC)

SSPC-PS 15.03 Chlorinated Rubber Painting System for

Marine and Industrial Atmospheres

1.3 GENERAL REQUIREMENTS

The Contractor shall be responsible for correctness of detailing, fabrication, and for the correct fitting of structural members. Substitution of sections or modification of connection details, or both, will not be accepted by the Government. Connections fully designed and detailed on the contract drawings shall be provided as shown. Members and connections, for any part of the structure, not shown on the contract drawings shall be the Contractor's responsibility; such connections shall be considered standard and designed and detailed in accordance with AISC ASD Manual. Welding shall be in accordance with AWS D1.1.

1.4 SUBMITTALS

All submittals shall be in accordance with Section 01440. Certified copies of mill test reports for structural steel and other related structural steel items shall be provided. The Contractor shall submit an erection plan of the structural steel framing required. Erection plan shall be submitted for approval prior to erection, and shall describe all necessary temporary supports, including the sequence of installation and removal. Certified copies of welders qualification test records showing qualification in accordance with AWS D1.1. Shop drawings for construction and placement of spillbox and appurtenant structures, indicating all erection details including members (with their connections) not shown on the contract drawings. Welds shall be indicated by standard welding symbols in accordance with AWS D1.1.

1.5 STORAGE

Material shall be stored out of contact with the ground in such manner and location as will minimize deterioration.

PART 2 PRODUCTS

2.1 STRUCTURAL STEEL

Steel shall be galvanized in accordance with ASTM A123 and A653, as applicable. Galvanizing shall be performed after fabrication to the maximum extent practical. Any galvanized areas removed for welding or is otherwise abraded by the

Contractor's work operations shall be cleaned and painted with a zinc-rich coating of the same quality as that used for the G90 galvanizing as specified.

2.1.1 Carbon Grade Steel

Carbon grade steel shall conform to ASTM A 36, galvanize G90.

2.1.2 Anchor Bolts

ASTM A 307, size intended for installation required, galvanize G90.

2.1.3 Miscellaneous Anchors and Cables

Screw type anchors shall have a minimum holding strength of 10 kips and be recommended by the manufacturer for the intended use. Other anchors shall be provided at locations indicated and be recommended by the manufacturer for the intended use. Markings shall identify the strength and grade, galvanize G90. Cables shall each be provided with cable couplings for adjusting cable tension.

2.1.4 Spillbox Ladder

A steel ladder shall be provided in accordance with OSHA requirements on the interior of the spillbox at the immediate junction of the access walkway and opening at top of spillbox. The ladder rungs shall not be less than 3/4 inch diameter spaced 12 inches apart. Ladder and associated structural connections shall be galvanized after fabrication in conformance with ASTM A 123.

2.1.5 Steel Items Not Galvanized

Ferrous items not galvanized shall be painted in accordance with SSPC Paint System 15.03.

PART 3 EXECUTION

3.1 STEEL FABRICATION

AISC ASD Manual of Steel Construction.

3.2 FIELD WELDED CONNECTIONS

AWS D1.1.

3.3 PAINTING

SSPC Painting System No. 15.03.

PLATE CUT AWAY
FOR CLARITY

C5x6.7(TYP)

1/2" R

1/4
1/4

TYP

4'-2"

4'-2"

BOTTOM VIEW
BASE SECTION
NO SCALE

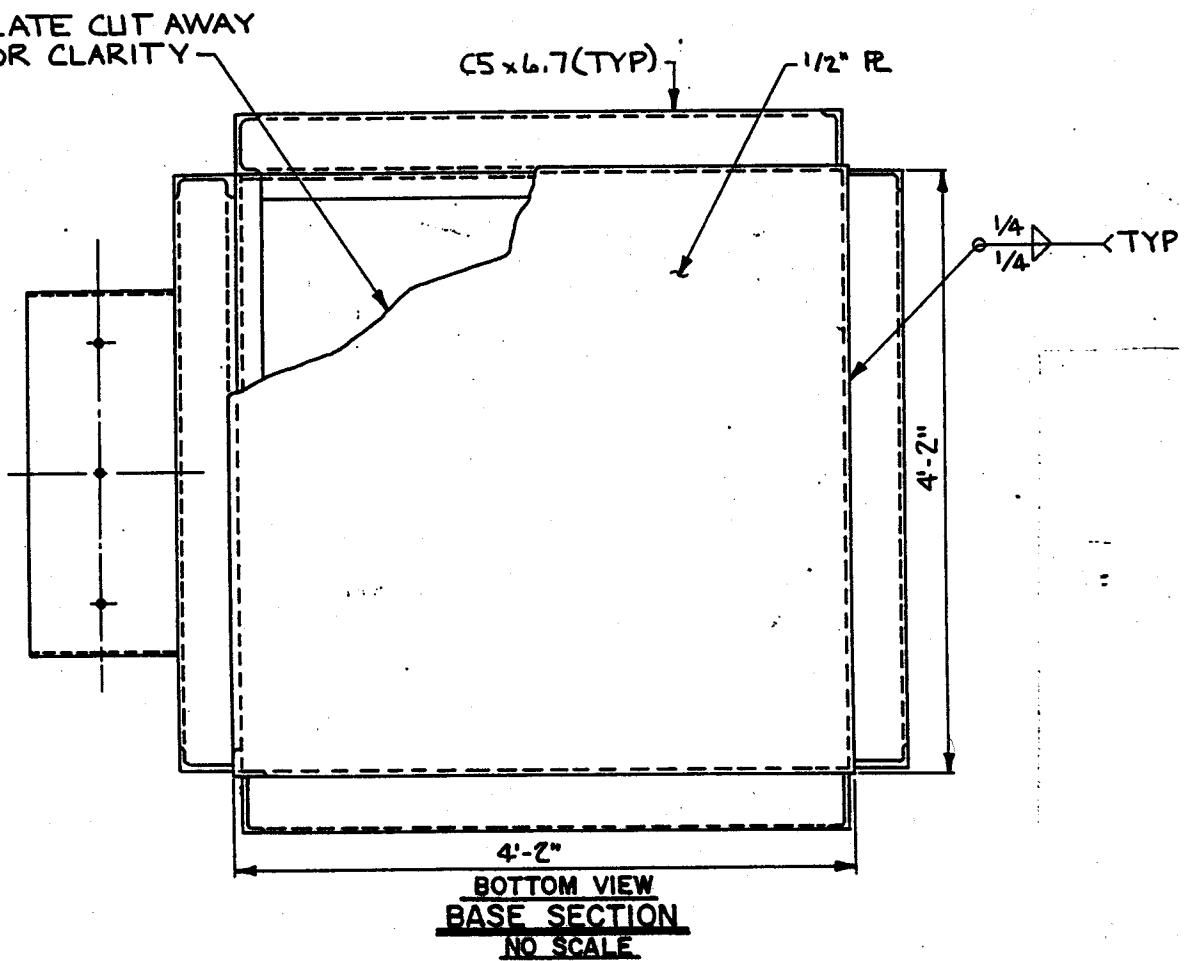


PLATE CUT AWAY
FOR CLARITY

C5x6.7(TYP)

1/2" R

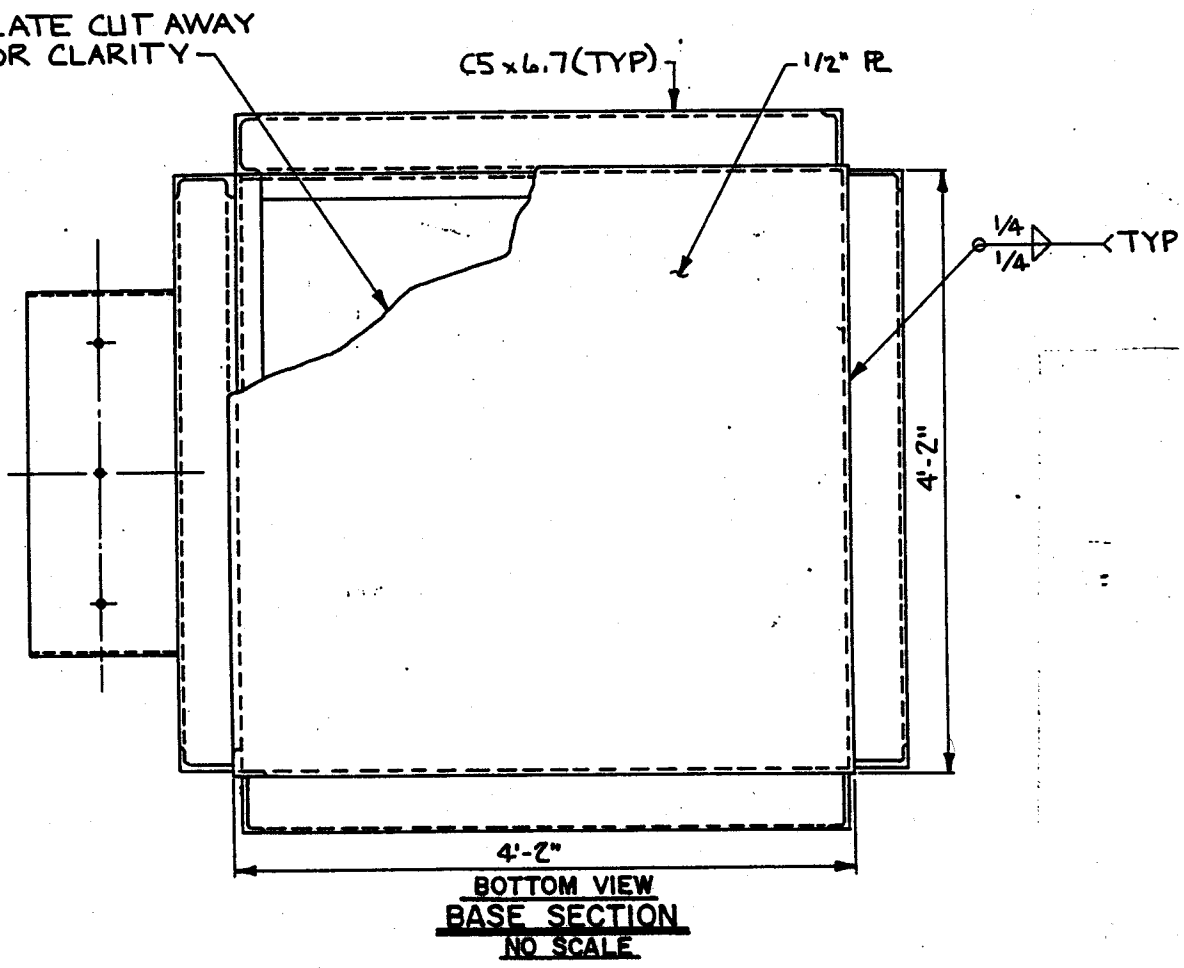
1/4
1/4

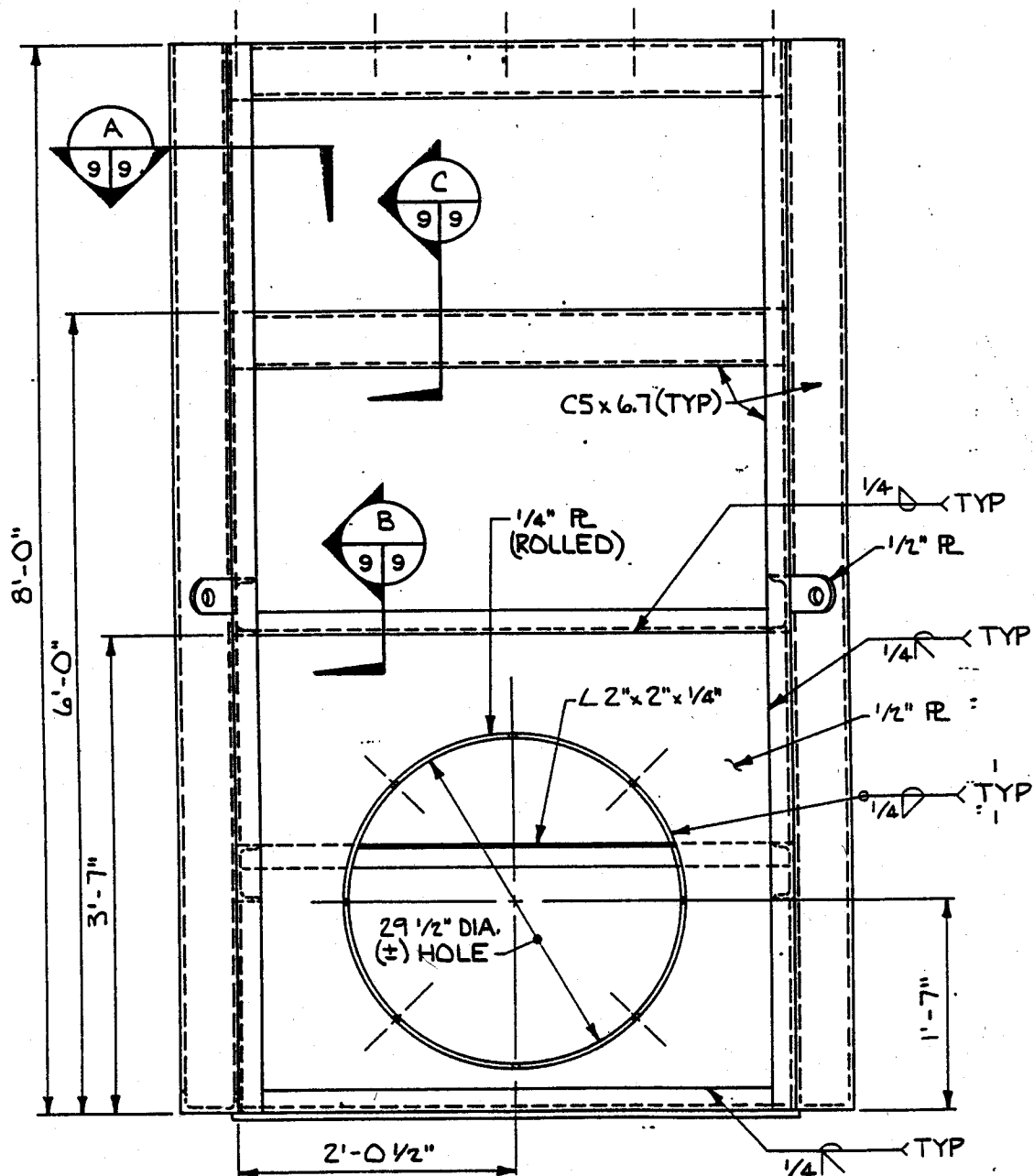
TYP

4'-2"

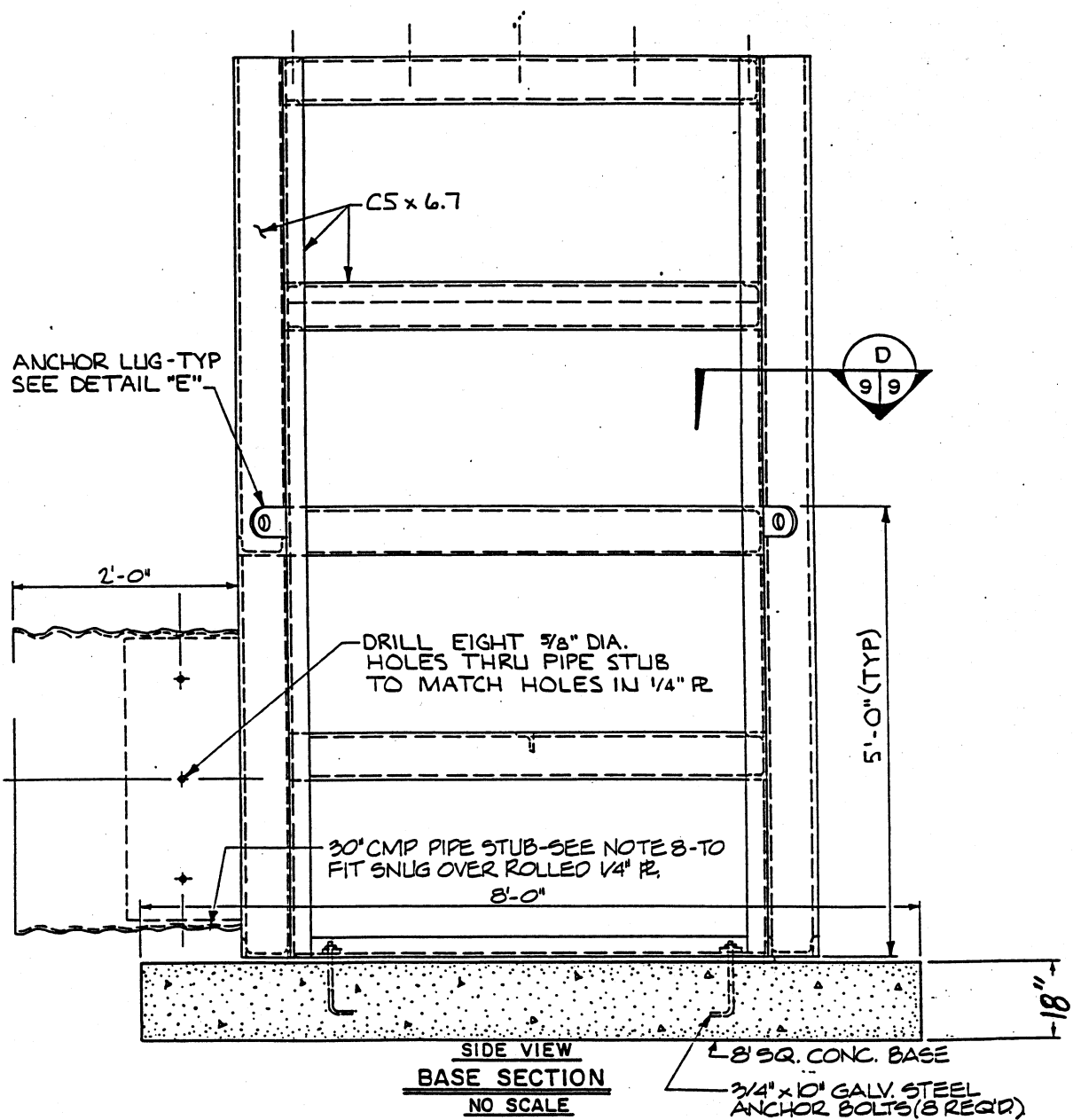
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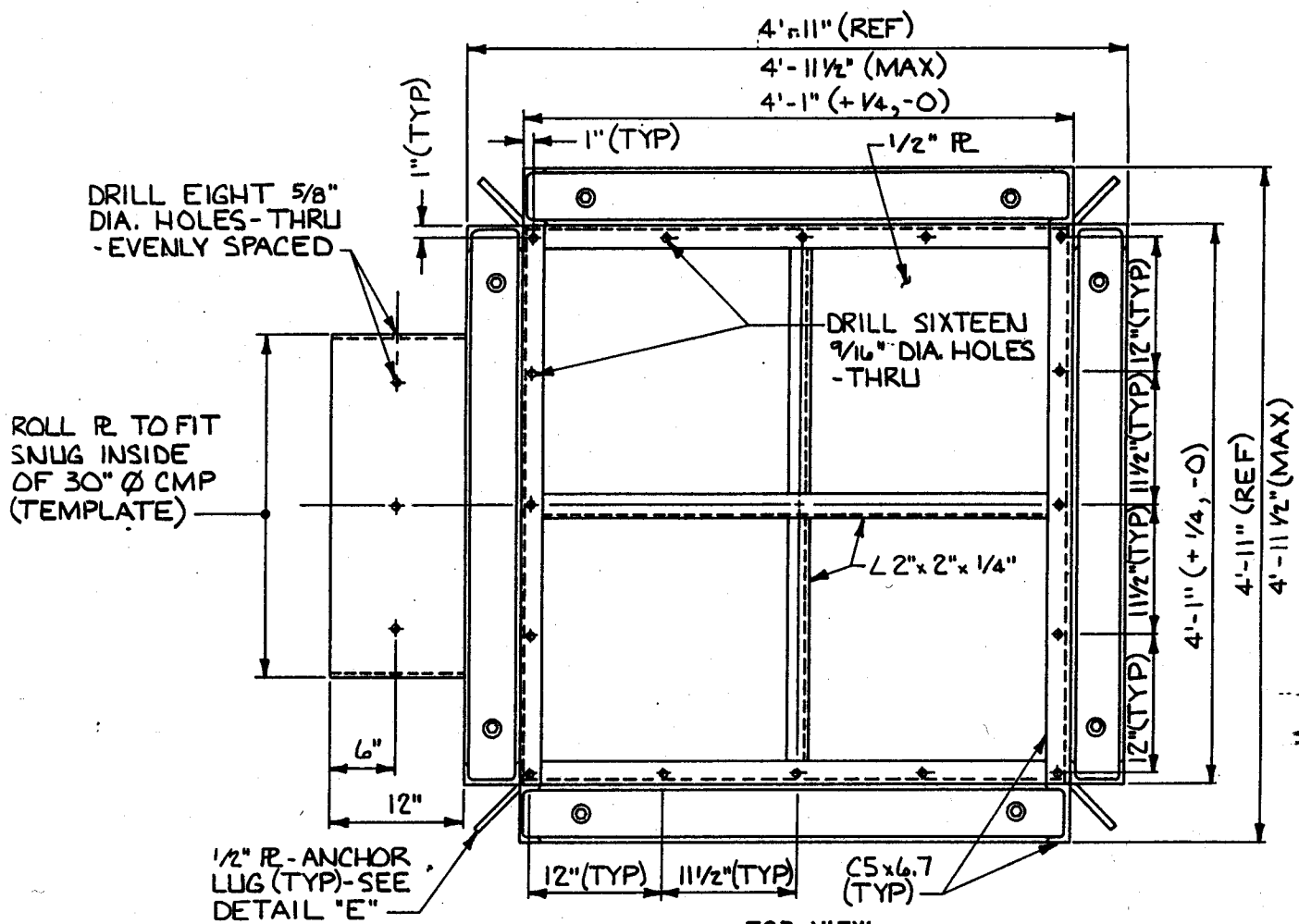
BOTTOM VIEW
BASE SECTION
NO SCALE





FRONT VIEW
BASE SECTION (3 REQ'D)
NO SCALE

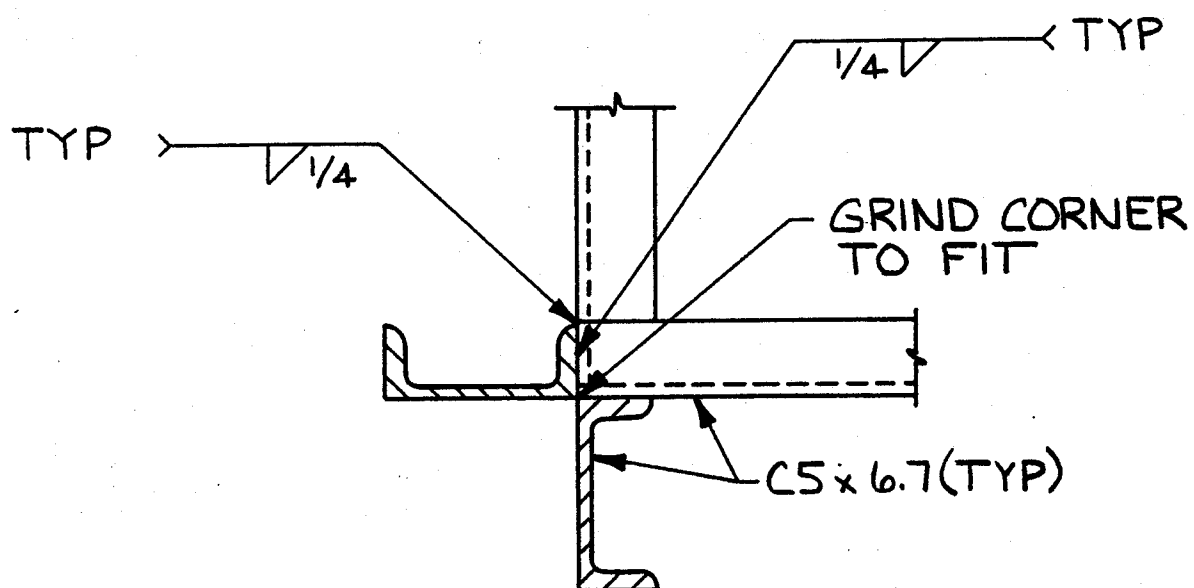




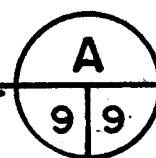
TOP VIEW
BASE SECTION
NO SCALE

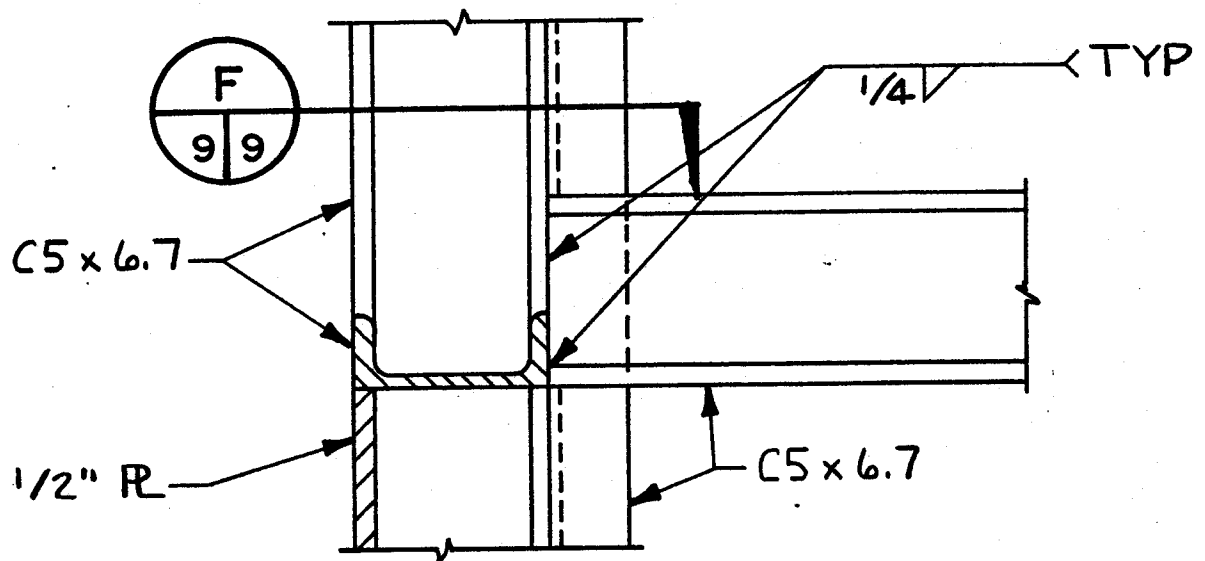
MAINTENANCE DREDGING
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA

PREPARED AND
ISSUED BY
DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
OPERATIONS BRANCH
WATERFIELD BUILDING
803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

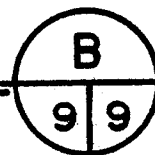


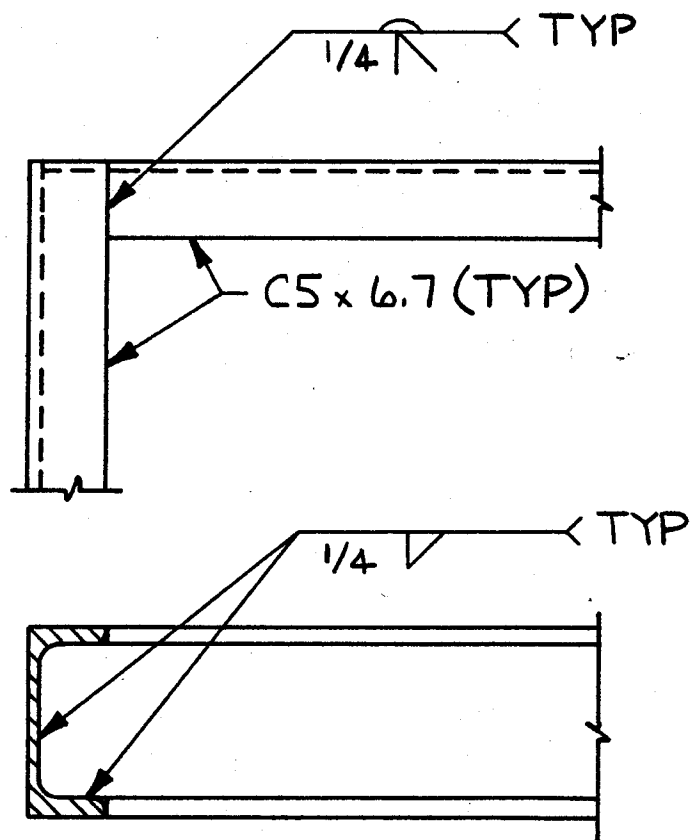
SECTION
NO SCALE



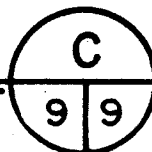


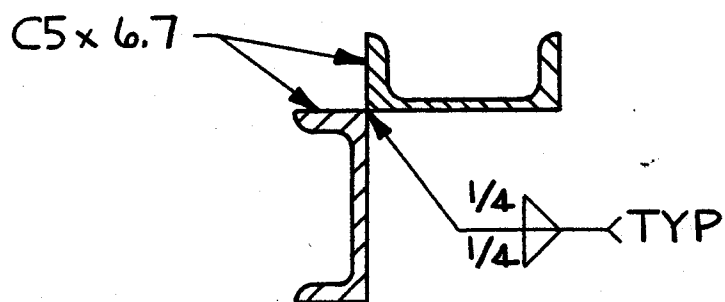
SECTION
NO SCALE



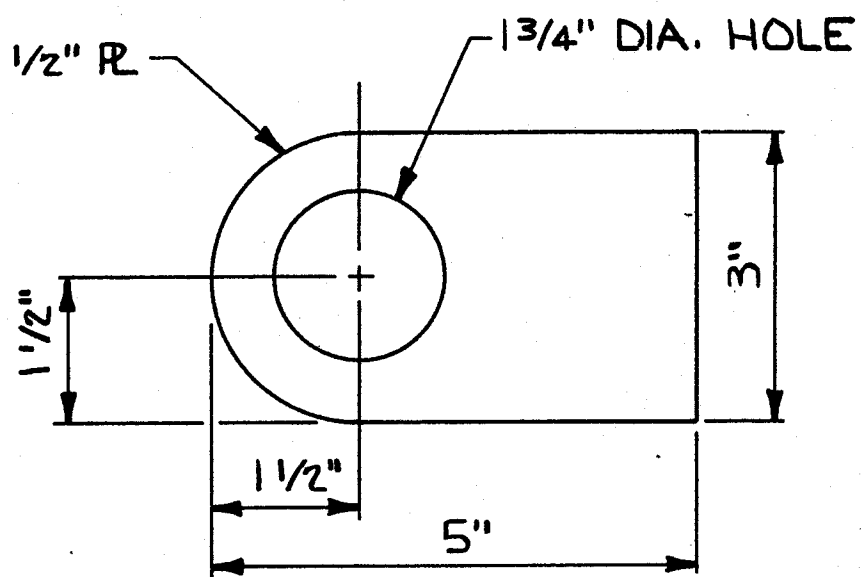


SECTION
NO SCALE
(INSIDE CHANNELS ONLY)

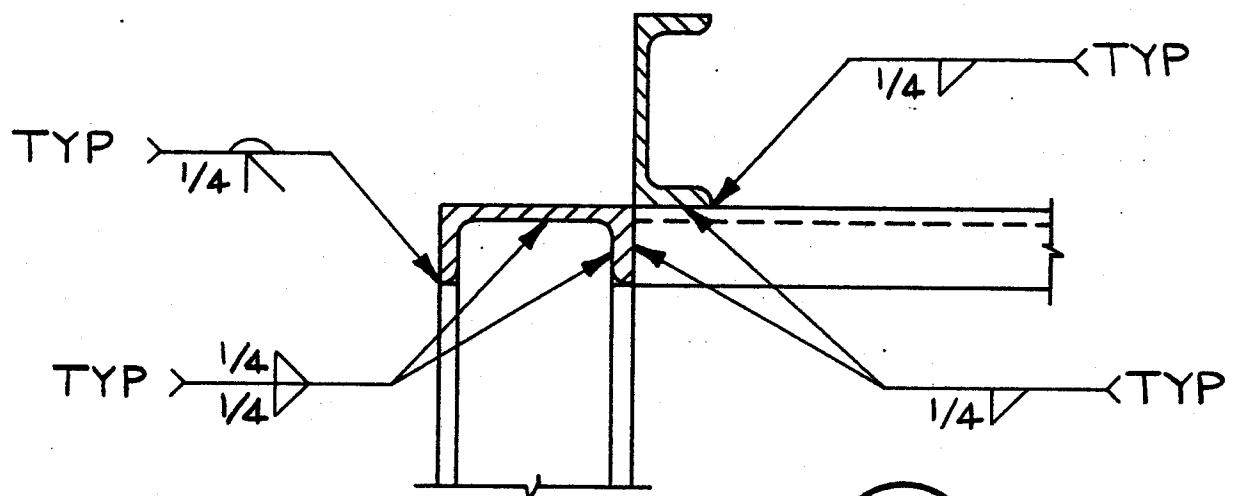




SECTION	D
<u>NO SCALE</u>	9 9



DETAIL "E"
NO SCALE



SECTION
NO SCALE

F	
9	9

Instructions For Completing ENG FORM 4025-R, Mar 95

A. Enter date the submittal is issued.

B. Enter the Transmittal Number under which the submittal was made.

The Transmittal Number shall have the following format:

A-B.C

Where: A is the specification section

B is a consecutive number where 1 would be the first transmittal under the given specification section, 2 would be the second transmittal, etc.

C is a consecutive number identifying resubmittals. Number 1 would be the first resubmittal, 2 the second, etc.

Examples of Transmittal Numbers under Specification Section 01451:

01451-1
01451-2
01451-1.1 (first resubmittal of 01451-1)
01451-3

C. Enter name and address of Corps of Engineers reviewing office.

D. Enter name and address of Contractor.

E. Enter contract number.

F. If this is the first submittal of information for this item number, check the box for "New Submittal". If not, check the box for "Resubmittal".

G. If the "Resubmittal" box is checked, enter the previous Transmittal No.

H. Enter the specification section that applies to this Transmittal Form. A separate Transmittal Form shall be used for submittals under separate sections of the specifications.

I. Enter name and location of project.

J. Indicate whether the submittal is "For Information Only (FIO)" or for "Government Approval (Gov't Approval)".

K. Enter the Item No. as identified on the Submittal Register.

L. Enter the Description of the item submitted as identified on the Submittal Register.

M. Enter information as necessary. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certification."

N. Enter the number of copies of submittal data attached.

O. Enter the specification paragraph number as identified on the Submittal Register using the following format:

Spec. Section - Paragraph number

P. Enter information as necessary.

Q. Enter Contractor Action Code. See reverse side of ENG Form 4025 for applicable codes.

R. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications. Attach a written statement describing the variation.

S. Review code assigned by the Government reviewer.

T. Remarks from the Contractor or Government review comments. Government review comments may also be placed on a separate sheet of paper.

U. Signature of Contractor reviewer.

V. Number of enclosures being returned to the Contractor by the Government reviewer

W. Signature and title of Government approving authority.

X. Date of review by the Government.

Other: In submitting manufacturer's literature or similar information, the Contractor shall clearly identify the item proposed for use.

[illegible]

CONTRACT NO.	(Example only)
--------------	----------------

SPECIFICATION	SECTION

TITLE AND LOCATION

(Contractor must prepare his own register)

01005

[illegible]

CONTRACT NO. (Example only)

TITLE AND LOCATION

(Contractor must prepare his own register)

01330

[illegible]

CONTRACT NO.	(Example only)
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TITLE AND LOCATION

(Contractor must prepare his own register)

SPECIFICATION SECTION

01451

[illegible]

CONTRACT NO.
(Example only)

TITLE AND LOCATION

SPECIFICATION SECTION

(contractor must prepare his own register)

[illegible]

CONTRACT NO. _____
(Example only)

TITLE AND LOCATION

(Contractor must prepare his own register)

CONTRACTOR

02881

02881

[illegible]

SUBMITTAL REGISTER

(ER 415 1-10)

TITLE AND LOCATION										CONTRACT NO.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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MATHEWS COUNTY WETLANDS BOARD PERMIT

Pursuant to Chapter 13, Section 28.2-1300 through Section 28.2-1320, of the Code of Virginia, 1950, as amended, the Mathews County Wetlands Zoning Board, hereinafter referred to as the Board, hereby grants unto Ronald G. Vann, P.E., Chief Operations Branch, Norfolk District, Corps of Engineers, 803 Front Street, Norfolk VA 23510-1096, hereinafter referred to as the Permittee, permission to undertake the following described project:

(description of project and location)

To dredge Winter Harbor and place the sandy portion of the dredge spoils along 4500 feet of the Chesapeake Bay shoreline north of the channel per attached drawings dated received 9/7/00.

For a more complete description of said project, reference is hereby made to the Permittee's Application for Wetlands Permit, **Wetlands Application #00-1679-15**; however, information on the Permittee's Permit supersedes any conflicting information on the application.

This permit is granted subject to the following terms and conditions:

1. Permittee shall comply with all applicable laws, ordinances, rules and regulations affecting the conduct of the project. Failure to comply may lead to revocation of this permit. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits of authority required for the project.
2. The duly authorized agents of the Board shall have the right to enter upon the premises at any reasonable time for the purpose of inspecting the work being done pursuant to this permit.
3. This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.
4. The permittee agrees to indemnify and save harmless the Commonwealth of Virginia and the County of Mathews from any liability arising from the establishment, operation or maintenance of said project.
5. The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties, wetlands, and the natural resources of the County of Mathews, including implementation of sediment control measures such as silt fences and/or straw bales as needed. Failure to comply may lead to revocation of this permit.
6. This permit shall not be transferred without the prior written approval of the Board.

7. The project, approved by the Board on **March 7, 2001**, shall be completed in 18 months after which time this permit shall be void; however, upon proper application to the Board, the time for the completion of the project may be extended by the Board at its discretion. Any such application for extension of time shall be in writing prior to the expiration date hereof and shall specify the reasons for such extension and the expected date of completion of the project. **Expiration date of this project is September 5, 2002.**

8. This permit may be revoked at any time by the Board upon the failure of the Permittee to comply with any of the terms and conditions herein, including description of project.

IN WITNESS WHEREOF, the Mathews County Wetlands Zoning Board has caused these presents to be executed on its behalf by **Kenneth P. Kurkowski, Chairman** or **Ms. Sherry C. Ashe, Wetlands Administration**. The signature of **Ronald G. Vann** is affixed hereto as evidence of his/her acceptance of the terms and conditions hereof.

PERMITTEE OR AGENT

Ronald G. Vann

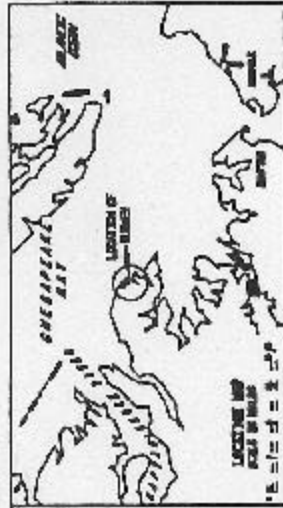
MATHEWS COUNTY WETLANDS BOARD

Sherry C. AsheSTATE OF VIRGINIA, CITY/COUNTY OF unincorporated, to-wit:The foregoing instrument was acknowledged before me this 23 day of March, 2001,by Angalee Ganske.My Commission expires: My Commission Expires August 31, 2004Angalee Ganske
Notary PublicSTATE OF VIRGINIA, CITY/COUNTY OF Mathews, to-wit:The foregoing instrument was acknowledged before me this 3 day of April, 2001,by Sherry C. Ashe.My Commission expires: 5-31-2003Sherry C. Ashe
Notary Public

NATURAL RESOURCES COMMISSION

RECEIVED
SEP 7 2000

Shoreline placement extends
northward approximately 4500 ft.



CHESAPEAKE BAY

LEGEND

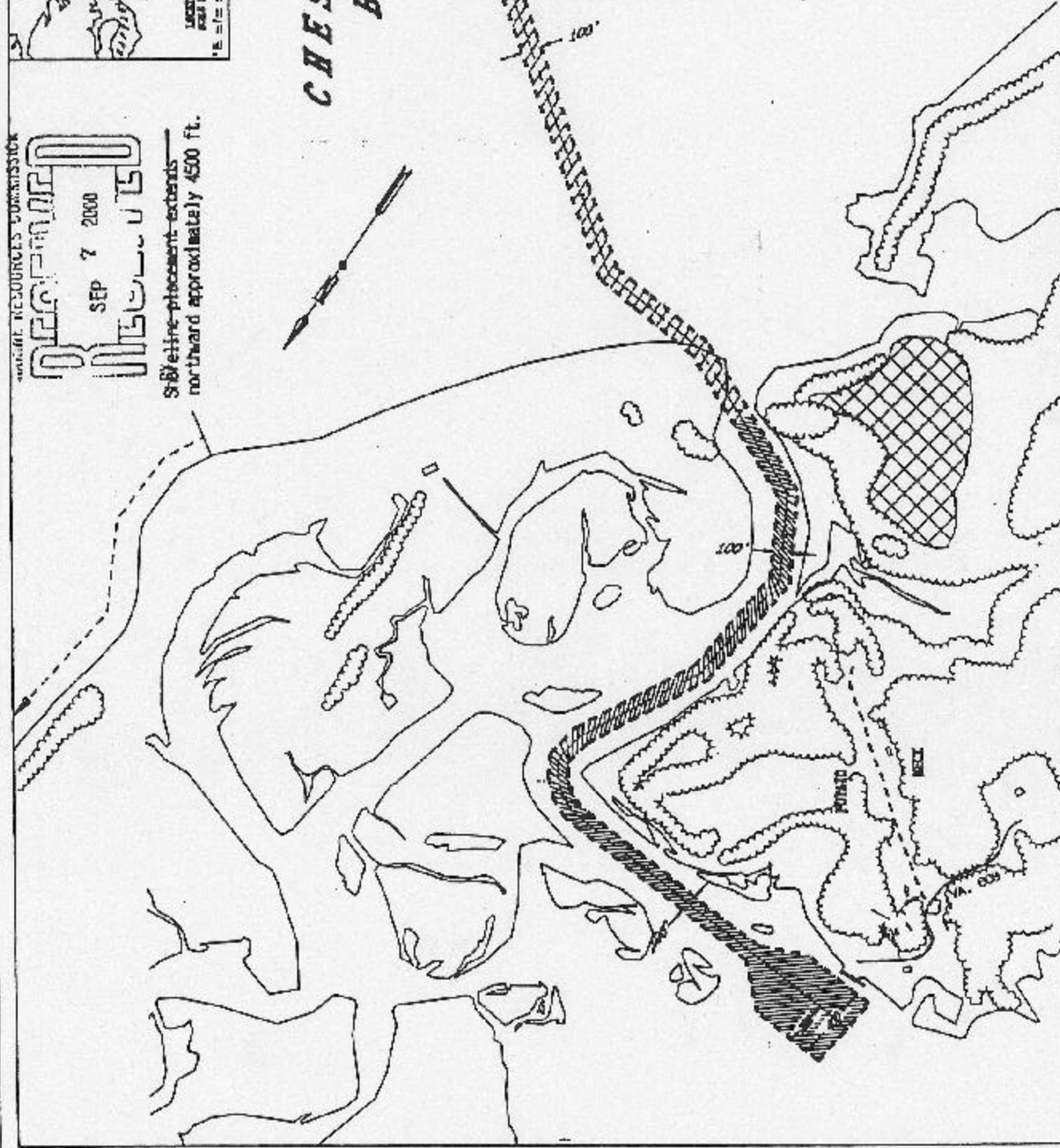
Channel area to be dredged
with shoreline placement

Channel area to be dredged
with upland placement

Limits of upland
management area

Shoreline placement

DEPARTMENT OF THE ARMY
NATURAL RESOURCES COMMISSION
NORFOLK, VIRGINIA
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA
APPROXIMATE SCALE 1"=700'



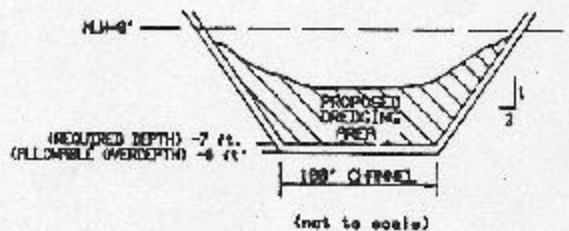
WINTER HARBOR

MATHEWS COUNTY, VIRGINIA

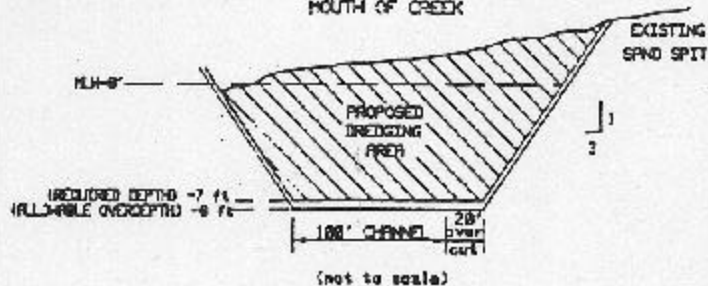
DREDGING AREAS

TYPICAL SECTIONS

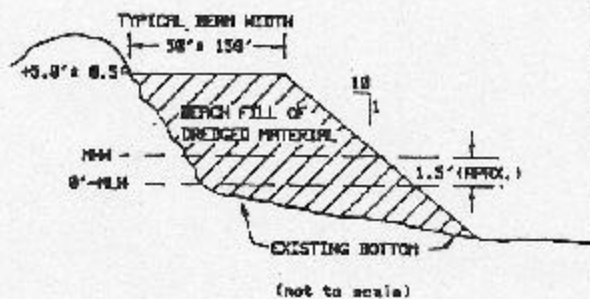
TYPICAL CHANNEL WIDTH



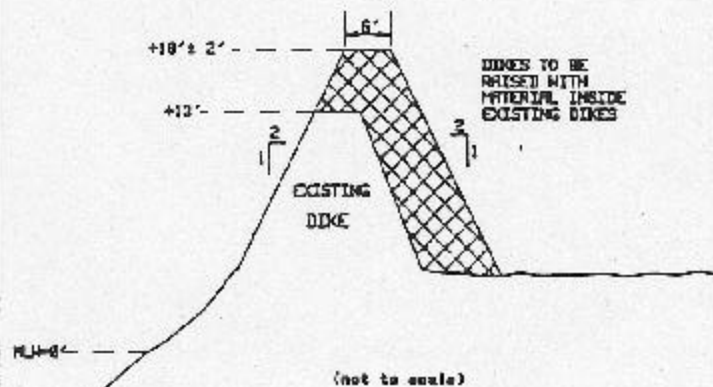
MOUTH OF CREEK



DREDGED MATERIAL
SHORELINE PLACEMENT



UPLAND PLACEMENT
DIKE



MARINE RESOURCES COMMISSION
RECEIVED
 SEP 7 2000
RECEIVED

TECHNICAL SPECIFICATIONS
MAINTENANCE DREDGING
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA

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F4288	Submittal Register Form 4288-R (Sample Only)
01355	Environmental Protection
	Virginia Water Protection Permits
	VMRC Permit
	Mathews County Permit
01451	Contractor Quality Control
01500	Temporary Construction Facilities
01850	Drawing Index

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02220	Demolition
02235	Clearing, Excavating, Dike Construction, (Including Spillbox, Accessway and Drainage Piping), and Finish Grading
02378	Geotextile Fabric
02386	Stone Protection
02881	Dredging

DIVISION 3 - CONCRETE

03300	Cast-In-Place Concrete
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DIVISION 4

This Division not used.

DIVISION 5 - METALS

05120	Structural Steel
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DIVISIONS 6 THROUGH 16

These Divisions not used

COMMONWEALTH OF VIRGINIA MARINE RESOURCES COMMISSION PERMIT

The Commonwealth of Virginia, Marine Resources Commission, hereinafter referred to as the Commission, on this 24th day of April 2001, hereby grants unto:

**U. S. Army Corps of Engineers
Attn: Ronald G. Vann, P.E.
Chief, Operations Branch
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, Va. 23510-1096**

hereinafter referred to as the Permittee, permission to:

 X Encroach in, on, or over State-owned subaqueous bottoms pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

 Use or develop tidal wetlands pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

Permittee is hereby authorized to hydraulically place, over a five year period, approximately fifty thousand (50,000) cubic yards of sandy dredged material resulting from the routine maintenance dredging of the Winter Harbor Federal Project Channel, along approximately four thousand five-hundred (4,500) linear feet of shoreline and State-owned subaqueous bottomland along the Chesapeake Bay in Mathews County. All activities authorized herein shall be accomplished in conformance with plans and undated drawings received September 7, 2001, which are attached and made a part of this permit.

This permit is granted subject to the following conditions:

- (1) The work authorized by this permit shall be completed by April 24, 2006. The Permittee shall notify the Commission when the project is completed. The completion date may be extended by the Commission in its discretion. Any such application for extension of time shall be in writing prior to the above completion date and shall specify the reason for such extension and the expected date of completion of construction. All other conditions remain in effect until revoked by the Commission or the General Assembly.
- (2) This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.
- (3) The duly authorized agents of the Commission shall have the right to enter upon the premises at reasonable times, for the purpose of inspecting the work being done pursuant to this permit.
- (4) The Permittee shall comply with the water quality standards as established by the Department of Environmental Quality, Water Division, and all other applicable laws, ordinances, rules and regulations affecting the conduct of the project. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits or authority for the projects.
- (5) This permit shall not be transferred without written consent of the Commission.
- (6) This permit shall not affect or interfere with the right vouchsafed to the people of Virginia concerning fishing, fowling and the catching of and taking of oysters and other shellfish in and from the bottom of acres and waters not included within the terms of this permit.
- (7) The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties and wetlands and upon the natural resources of the Commonwealth.
- (8) This permit may be revoked at any time by the Commission upon the failure of the Permittee to comply with any of the terms and conditions hereof or at the will of the General Assembly of Virginia.
- (9) There is expressly excluded from the permit any portion of the waters within the boundaries of the Bayler Survey.
- (10) This permit is subject to any lease of oyster planting ground in effect on the date of this permit. Nothing in this permit shall be construed as allowing the Permittee to encroach on any lease without the consent of the leaseholder. The Permittee shall be liable for any damages to such lease.
- (11) The issuance of this permit does not confer upon the Permittee any interest or title to the beds of the waters.
- (12) All structures authorized by this permit which are not maintained in good repair shall be completely removed from State-owned bottom within three (3) months after notification by the Commission.
- (13) The Permittee agrees to comply with all of the terms and conditions as set forth in this permit and that the project will be accomplished within the boundaries as outlined in the plans attached hereto. Any encroachment beyond the limits of this permit shall constitute a Class 1 misdemeanor.
- (14) This permit authorizes no claim to archaeological artifacts which may be encountered during the course of construction. If, however, archaeological remains are encountered, the Permittee agrees to notify the Commission, who will in turn notify the Department of Historic Resources. The Permittee further agrees to cooperate with agencies of the Commonwealth in the recovery of archaeological remains if deemed necessary.
- (15) If any loss or damage to the Commonwealth is caused or contributed to, in whole or in part, by the Permittee arising from the establishment, operation, or maintenance of said project, the liability of the Permittee therefore shall be determined in accordance with the applicable provisions of the Federal Tort Claims Act or August 2, 1946, as amended.

The following special conditions are imposed on this permit:

- (16) The yellow placard accompanying this permit document must be conspicuously displayed at the work site throughout the construction phase of the authorized activity.
- (17) Permittee agrees to notify the Commission a minimum of 15 days prior to the start of the construction activities authorized by this permit.

A permit issuing fee of: \$100.00

and a royalty of: N/A

for a total of \$100.00

This permit consists of 5 sheets.

PERMITTEE

Permittee's signature is affixed hereto as evidence of acceptance of all of the terms and conditions herein.

In cases where the Permittee is a corporation, agency or political jurisdiction, please assure that the individual who signs for the Permittee has proper authorization to bind the organization to the financial and performance obligations which result from activity authorized by this permit.

PERMITTEE

Accepted for U. S. Army Corps of Engineers

19th day of July, 2001By Ronald D. Vann Chief, Operations Branch
(Name) (Title)State of VirginiaCity (or County) of Charlottesville to-wit:

I, Angalee W. Haroke a Notary Public in and for said City (or County) and State hereby certify that
Ronald D. Vann Permittee, whose name is signed to the foregoing, has acknowledged the
same before me in my City (or County) and State aforesaid.

Given under my hand this 19 day of July, 2001

My Commission Expires:

My Commission Expires August 31, 2004

Notary Public

Angalee W. Haroke

COMMISSION

IN WITNESS WHEREOF, the Commonwealth of Virginia, Marine Resources Commission has caused these presents to be
executed in its behalf by Robert W. Grabb, Chief
(Name) (Title) Marine Resources Commission

26th day of July, 2001by Robert W. Grabb

State of Virginia

City of Newport News, to wit:

I, Audrey M. Nichols, a Notary Public within and for said City, State of Virginia, hereby certify that
Robert W. Grabb, whose name is signed to the foregoing, bearing the 24th day of April
2001, has acknowledged the same before me in City aforesaid.

Given under my hand this 26th day of July, 2001

My Commission Expires: 4-30-03

Notary Public

Audrey M. Nichols

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SEP 7 2000

Shoreline placement extends northward approximately 4500 ft.



CHESAPEAKE BAY



- LEGEND -

- Channel area to be dredged with shoreline placement
- Channel area to be dredged with upland placement
- Limits of upland management area
- Shoreline placement

DEPARTMENT OF THE ARMY
 NORFOLK DISTRICT, CORPS OF ENGINEERS
 NORFOLK, VIRGINIA
 WINTER HARBOR
 MATHEWS COUNTY, VIRGINIA
 APPROXIMATE SCALE 1"=700'

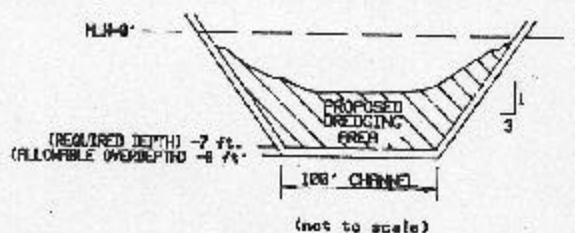
WINTER HARBOR

MATHEWS COUNTY, VIRGINIA

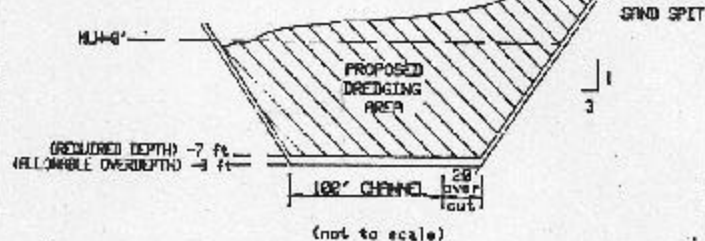
DREDGING AREAS

TYPICAL SECTIONS

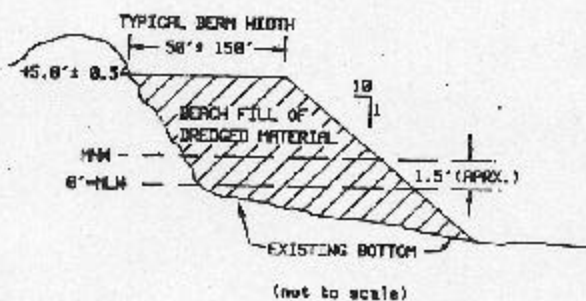
TYPICAL CHANNEL WIDTH



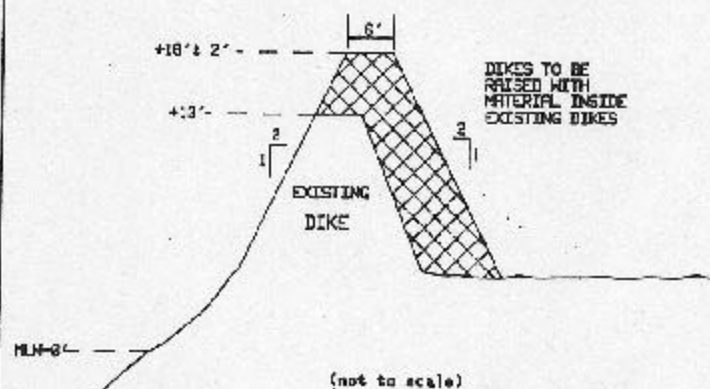
MOUTH OF CREEK



DREDGED MATERIAL
SHORELINE PLACEMENT



UPLAND PLACEMENT
DIKE



MARINE RESOURCES COMMISSION
APPROVED
SEP 7 2000
RECEIVED



Permit # 00-1670

Commonwealth of Virginia Marine Resources Commission Authorization

A Permit has been issued to:

U. S. Army Corps of Engineers
Attn: Ronald G. Vann, P.E.
Chief, Operations Branch
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096

The Permittee is hereby authorized to:

to hydraulically place, over a five year period, approximately fifty thousand (50,000) cubic yards of sandy dredged material resulting from the routine maintenance dredging of the Winter Harbor Federal Project Channel, along approximately four thousand five-hundred (4,500) linear feet of shoreline and State-owned subaqueous bottomland along the Chesapeake Bay in Mathews County.

Issuance Date: April 24, 2001

Expiration Date: April 24, 2006

Commissioner or Designee

This Notice Must Be Conspicuously Displayed At Site Of Work



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE

4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
<http://www.deq.state.va.us>

May 31, 2001

Dennis H. Treacy
Director

Garard Socley, Jr.
Piedmont Regional Director

Mr. Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

RE: VWP Permit No. 00-1670

Dear Mr. Vann:

In accordance with your application, we have enclosed the original and one copy of the Virginia Water Protection Permit for the proposed maintenance dredging of the Winter Harbor Federal Navigation Channel in Mathews County, Virginia, pursuant to the Virginia Water Protection Permit (9 VAC 25-210 et seq) and Section 401 of the Clean Water Act Amendments of 1977, Public Law 95-217.

The provisions and conditions contained therein according to Section 401(a)(1) of the Clean Water Act requires that:

"any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge in the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act."

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Mr. Ronald G. Vann, P.E.

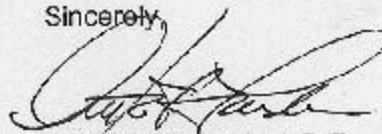
Page 2

Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies. Alternatively, any owner under §§ 62.1-44.16, 62.1-44.17 and 62.1-44.19 of the State Water Control Law aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in § 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

Please retain the copy and forward the original permit to the Norfolk District, Corps of Engineers, Fort Norfolk, 803 Front Street, Norfolk, Virginia 23510, ATTN: Permits Section.

If you have any questions, please advise us.

Sincerely,



Curtis J. Linderman, P.E.
Water Permits Manager

Enclosures

cc: DEQ-VWPP File

VMRC - Environmental Division

U.S. Army Corps of Engineers, Norfolk District

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, VA 23060

SUBJECT: REISSUANCE OF VIRGINIA WATER PROTECTION PERMIT NO. 00-1670

TO: James J. Golden
Deputy Regional Director

FROM: Debra J. Barnes via Curtis J. Linderman, P.E.
Permit Engineer Water Permits Manager *CJL*

DATE: May 22, 2001

COPIES: VMRC, COE, Applicant, File

Legal Name, Address: Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U. S. Army Corps of Engineers - Norfolk District
803 Front Street
Norfolk, VA 23510

Application Submitted by: Ronald G. Vann, P.E.
Chief, Operations Branch
U. S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510

Application Date: Received: September 7, 2000; Revisions on January 5, 2001 and April 6, 2001
Complete: April 6, 2001
Fee received: N/A

Type of Project: The applicant proposes to dredge (maintenance dredge) Winter Harbor channel by the hydraulic method. The channel is proposed to be dredged to a depth of -9 feet MLLW (to include advance maintenance and overdepth) and bottom width of 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each for the next two cycles, with no greater than 275,000 cubic yards over a 15-year period. The

dredged material from inside Winter Harbor will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. The sandy material dredged from the outer portion of the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.

Project Location:

Stream: Winter Harbor, tributary to the Chesapeake Bay
Basin: Chesapeake Bay, Atlantic Ocean & Small Coastal Basins
Subbasin: N/A
Section: 2 Class: II
Special Standards: a, NEW-20

Public Notice:

The public notice was published in the Gloucester Mathews Gazette-Journal on April 19, 2001. No comments from the general public were received.

Action by the U.S. Army
Corps of Engineers:

The Corps of Engineers Regulatory Branch does not have permit authority over Corps Federal Navigation projects.

Staff Comments:

The Virginia Department of Health, Virginia Department of Agriculture and Consumer Services, Virginia Department of Conservation and Recreation, Virginia Department of Game and Inland Fisheries, and Virginia Department of Marine Resources reviewed the draft permit. None of these agencies had any objections to our issuance of the permit.

A previous permit for this activity (91-0133) was issued on March 7, 1991 and will expire on March 7, 2001. Permit fees are not required for maintenance dredging of federal navigation channels (Section 62.1-4.16:6 of the Code of Virginia).

There are no proposed impacts to vegetated tidal wetlands. There will be impacts to subaqueous land contained in the 8,500 foot federal navigation channel, 3.5 acres of impact to non-vegetated tidal wetlands on Winter Harbor beach from the shoreline disposal of the outer channel dredged material, and adverse impacts to the northeastern beach tiger beetle population along 4,500 feet of Winter Harbor beach north of the channel. These impacts are to be the same as previously authorized by permit 91-0133.

The staff anticipates no adverse effect on water quality provided the applicant adheres to the permit conditions.

Staff Recommendations:

The staff recommends that the following be approved:

- (1) The attached Virginia Water Protection Permit and conditions.
- (2) Direction for the staff to reissue VWP Permit Number 00-1670.

Approved: _____

James J. Golden

Date: _____

5-31-01



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP Permit No. 00-1670

Effective Date: May 31, 2001

Expiration Date: May 31, 2015

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA WATER PROTECTION PERMIT

PURSUANT TO SECTION 401 OF THE CLEAN WATER ACT

AND STATE WATER CONTROL LAW

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Board has determined that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, is consistent with the provisions of the Clean Water Act and the State Water Control Law. The Board finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources.

Permittee: Mr. Ronald G. Vanni, P.E. - Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers

Address: 803 Front Street
Norfolk, Virginia 23510

Activity: Winter Harbor, from the 12-foot contour in the Chesapeake Bay into
Winter Harbor to a point just east of the present public landing area
in Mathews County, Virginia.

Activity Description: The applicant proposes to maintenance dredge the Winter Harbor Federal
Navigation Project Channel (maximum 8,500 feet long), by hydraulic method to a depth
of -9 ft. MLLW (to include advance maintenance and overdepth) and a bottom width of 100
feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area
of the turning basin, which is located at the public landing, shall not exceed 400 feet
square. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand
inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the
channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each
for the next two cycles, for a total of 275,000 cubic yards over the 15-year permit term. The
dredged material from inside Winter Harbor will be pumped to a previously used, 11-acre
diked upland site near the mouth of the creek. The sandy material from the outer portion of
the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions, and Part II - General Conditions.

James J. Giddens (Sr.)
Director, Department of Environmental Quality

5-31-01

Date

Authorized Activities

1. This permit authorizes the maintenance dredging of the Winter Harbor Federal Navigation Project Channel by hydraulic method as indicated in the Joint Permit Application dated September 6, 2000 (received on September 21, 2000), and supporting documentation received on January 5, 2001 and April 6, 2001, which was deemed complete on April 6, 2001. Dredged sand spoils from the outer channel will be placed along 4,500 feet of Winter Harbor beach north of the channel. Dredged spoils from inside the channel will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek.
2. Any additional impacts to State waters associated with this project may require modification of this permit and mitigation.

Site Specific Dredging Conditions

3. The double handling of dredged material in State waters shall not be permitted.
4. All dredged materials pumped by hydraulic method via pipeline to the disposal area shall be done in such a manner as to prevent leakage or discharge into State waters. In the event of a ruptured pipeline, the Department of Environmental Quality-Kilmarnock Office (DEQ-KO) shall be notified immediately and dredging/disposal operations shall immediately cease until repairs are accomplished.
5. If evidence of impaired water quality, including fish kills, is observed during the dredging, dredging operations shall cease and the DEQ-KO (804-435-3181) shall be notified immediately.
6. All dredging shall be accomplished by hydraulic methods.
7. The first dredging cycle may remove 125,000 cubic yards – the last two cycles may remove 75,000 cubic yards each, with no greater than 275,000 cubic yards of material removed over the term of this permit.
8. Dredging is permitted to a maximum allowable depth of -9 feet Mean Lower Low Water (MLLW) (to include advance maintenance and allowable overdepth).
9. The proposed entrance channel bottom width dredge cut shall not exceed 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 linear feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance.

10. The dredged material from the inner channel will be pumped by pipeline to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. There will be a return flow to State waters from this site. The sandy material dredged from the outer channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.
11. A post dredge bathymetric survey shall be submitted to the DEQ-KO within 30 days following completion of each dredging cycle.
12. The dredged material dewatering area shall be of adequate size to contain the dredged material and to allow for dewatering and settling out of sediment prior to discharge back into State waters.
13. The dredged material dewatering area shall utilize an earthen berm and/or straw bale covered with filter fabric along the edge of the area to contain the dredged material, and shall be properly stabilized prior to placing the dredged material within the containment area.
14. To prevent erosion and scouring of the shoreline, a rip-rap apron shall be placed at the outfall pipe at the point of discharge into State waters.
15. The dewatering structure shall remain in place until all dredged material has fully dewatered.
16. Ground cover or seeding shall be applied to the outside bank of the earthen berm within 7 days after constructing the berm and stabilized within 30 days to minimize soil runoff.
17. Overtopping of the dredge spoil containment berms with dredge spoil shall be prohibited.
18. During dredging of the outer channel and the placement of material along the 4,500 feet of shoreline, the following measures are required to minimize take of the northeastern beach tiger beetle:
 - (a) Dredged material shall be placed on Winter Harbor beach only during December 1 through March 15 of any year.
 - (b) Dredged material shall be placed no deeper than 1.5 feet in the upper end of the intertidal zone to the back beach.
 - (c) Use of heavy equipment on the beach is prohibited – vehicular traffic shall be allowed only when absolutely necessary, and no refueling of equipment of vehicles shall occur on the beach.
 - (d) Human activity on the beach during construction shall be minimized.

Conditions Applicable to all Permits

19. This permit is valid for **fifteen years** from the date of reissuance. Reissuance of the permit may be necessary if any portion of the authorized activities or any permit requirement (including mitigation) has not been completed. The VWPP Regulation (9 VAC 25-210-80) requires submittal of an application for reissuance no less than 180 days prior to the expiration date of the permit.
20. All fill material shall be clean and free of contaminants in toxic concentrations or amounts in accordance with all Department of Environmental Quality Regulations.
21. Wet or uncured concrete shall be prohibited from entry into State waters.
22. All materials (including fill, construction debris, and excavated and woody materials) temporarily stockpiled in wetlands shall be placed on mats, immediately stabilized to prevent entry into State waters, managed such that leachate does not enter State waters, and completely removed within 30 days following completion of that construction activity. Disturbed areas shall be returned to original contours, stabilized within 30 days following removal of the stockpile, and restored to the original vegetated state.
23. All non-impacted wetlands within 50 feet of any clearing, grading, and/or filling activities shall be clearly flagged or demarcated for the life of the construction activity within that area. The permittee shall notify all contractors that these marked areas are wetlands where no excavation or filling is to occur.
24. Equipment in temporarily-impacted wetland areas shall be placed on mats. Mats shall be removed as soon as that work is complete, and disturbed areas shall be returned to original contour and stabilized within 30 days and restored to the original vegetated state.
25. All utility line work in State waters shall be performed in such a manner as to minimize disturbance, and the area must be returned to its original contours and stabilized.
26. Erosion and sedimentation controls shall be designed in accordance with the current Virginia Department of Conservation and Recreation (DCR) Erosion and Sedimentation Control Handbook. These controls shall be placed prior to clearing and grading and maintained in good working order to minimize impacts to waters. These controls shall remain in place until the area stabilizes.
27. All denuded areas shall be properly stabilized in accordance with the current DCR Erosion and Sedimentation Control Handbook.
28. All construction and demolition activities associated with this project shall be

accomplished in such a manner that construction and/or waste materials do not enter State waters.

29. Project activities shall not disrupt the movement of aquatic life, unless authorized by this permit.
30. No machinery may enter flowing waters in connection with this project unless authorized by this permit.
31. Activities authorized by this permit shall be accomplished to maintain general water quality criteria (9 VAC 25-260-20) and applicable provisions 9 VAC 25-260-50 through 9 VAC 25-260-70. Should these limits be violated, dredging activities shall halt and DEQ shall be notified immediately. A corrective action plan, schedule, and monitoring plan shall be submitted to the DEQ-KO within 5 days of the violation.

Monitoring

32. Properly labeled photographs (to include date and time, name and signature of the person taking the photograph, and permit number) shall be taken during each dredging cycle clearly depicting the dredging equipment in operation.
33. Properly labeled photographs (to include date and time, name and signature of the person taking the photograph, and permit number) of the disposal site shall be taken after completion of each dredging cycle and as soon as the dredge spoil material has stabilized.
34. Total Suspended Solids (TSS) shall be monitored using grab samples to capture maximum Total Suspended Solids concentrations down current of the dredge and at the return flow of the inner channel spoils disposal area, as specified in the "Water Quality Sampling and Monitoring Controls" section of the Corps of Engineers dredging specifications. Copies of the Daily Report showing the results of the sampling and sample locations will be provided as specified in No. 38 of this permit.

Reporting

35. **Written communications** required by this permit shall be submitted to the **Department of Environmental Quality, Kilmarnock Office (DEQ-KO), P. O. Box 669, Kilmarnock, Virginia 22482.** Please include your permit number, 00-0210, in all correspondence with our office.
36. **The DEQ-KO shall be notified in writing by certified letter at least ten days prior to the start of each dredging cycle.** Notification shall include identification of the impact area at which work will occur and a projected schedule for completing work at each permitted impact area.

37. **Photographs detailed in Special Conditions No. 32 and 33, above, shall be submitted to the DEQ-KO within 30 days of being taken.**
38. **The Corps of Engineers' Inspection Group Summary of Daily Operations Reports shall be submitted to the DEQ-KO VWPP staff on Friday of every week, for the preceding week, during dredge or discharge operations. Results of all water quality monitoring required by this permit shall be submitted to DEQ by the 10th of the month following completion of each dredging cycle.**
39. **Exceedances of State Water Quality Standards shall be reported within 24 hours to the DEQ-KO (804-435-3181). After normal business hours, call the DEQ-Piedmont Regional Office at 804-527-5020.**
40. **The permittee shall report any fish kills or spills of oil or fuel immediately upon discovery. The permittee and his contractors shall employ measures to prevent spills of fuels and lubricants into State waters. The DEQ-Piedmont Regional office shall be notified (804-527-5020) if spills or fish kills occur Monday through Friday between the hours of 8:15 a.m. to 5:00 p.m., otherwise oil spills or fish kills shall be reported to the Virginia Department of Emergency Services (1-800-468-8892).**
41. **When unusual or potentially threatening conditions are encountered which require debris removal or involve potentially toxic substances, the permittee shall notify the DEQ-KO staff in writing. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure is prohibited until approved by DEQ.**
42. **All submittals required by this permit shall contain the following, signed, certification statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in these regulations shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

1. The permittee shall take all reasonable steps to
 - a) avoid all adverse environmental impact which could result from the activity,
 - b) where avoidance is impractical, minimize the adverse environmental impact, and
 - c) where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;
2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology; or
3. When the circumstances on which the previous permit was based have materially and substantially changed or special studies conducted by the Department or permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit. The permittee shall submit a new application 180 days prior to any modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or
2. Violate or lead to the violation of the terms and conditions of the permit or the water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.

I. Right of Entry

The permittee shall allow authorized State and Federal representatives, upon the presentation of credentials at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;
2. To inspect any facilities, operations, or practices (including monitoring equipment) regulated or required under the permit;
3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;
2. The notice of the proposed transfer includes a written agreement between the existing and proposed new owner containing a specific date of transfer of the permit responsibility, coverage and liability between them; and
3. The Department of Environmental Quality does not within the 30 day time period notify the existing owner of its intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The applicant shall notify the Department of Environmental Quality of any modification of this project and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;
3. When a change is made in the promulgated standards or regulations on which the permit was based;
4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;
5. When an effluent standard or prohibition for toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;
6. When changes occur which are subject to "reopener clauses" in the permit.
7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State water Control Law Sections 62.1-242 through 253, during the term of the permit;
8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;
9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or
10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;
2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant

facts at any time;

3. The permittee's violation of a special or judicial order;
4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,
2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

VWP PERMITS PROGRAM
FACT SHEET

1. Legal name and Address: Winter Harbor Federal Navigation Channel Project
c/o Ronald G. Vann, P.E. - U.S. ACOE
803 Front Street
Norfolk, Virginia 23510
2. Application Submitted By: Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers
803 Front Street
Norfolk, Virginia 23510
3. Application Date: Received: September 7, 2000; Revisions on January 5, 2001
and April 6, 2001
Complete: April 6, 2001
4. Permit Fee: Not Applicable. Permit fees are not required for maintenance dredging of federal navigation channels (Section 62.1-4.16:6 of the Code of Virginia).
5. Project Description: The U. S. Army Corps of Engineers has applied for a permit to maintain dredge Winter Harbor channel by the hydraulic method. The channel is proposed to be dredged to a depth of -9 feet Mean Lower Low Water (to include advance maintenance and overdepth) and bottom width of 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each for the next two dredging cycles, with no greater than 275,000 cubic yards over a 15-year period. The dredged material from inside Winter Harbor will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. The sandy material dredged from the outer portion of the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.
6. Project Impacts: There are no proposed impacts to vegetated tidal wetlands. There will be impacts to subaqueous land contained in the 8,500 foot federal navigation channel, 3.5 acres of impact to

non-vegetated tidal wetlands on Winter Harbor beach from the shoreline disposal of the outer channel dredged material, and adverse impacts to the northeastern beach tiger beetle population along 4,500 feet of Winter Harbor beach north of the channel. These impacts are to be the same as previously authorized by permit #91-0133.

7. Mitigation of Impacts:

No mitigation is required, since there are no proposed impacts to vegetated tidal wetlands. To minimize take of the northeastern beach tiger beetle during dredging of the outer channel and placement of the dredged material on 3.5 acres of non-vegetated tidal wetlands on Winter Harbor beach along the 4,500 feet of Chesapeake Bay shoreline north of the channel, the permit requires that construction activities be conducted from December 1 through March 15. It is believed that impacts will be temporary in nature and recovery of the beneficial use and the northeastern beach tiger beetle population is assured, so mitigation is not necessary.

8. Project Location:

The Winter Harbor Federal Navigation Project channel dredging project is located at Winter Harbor Haven in Mathews County, Virginia. Directions: From Mathews, Route 14 to Route 608, follow to the end of the road.

Topo Maps: Mathews and New Point Comfort Quadrangles
HUC Code: 02080102
Stream: Winter Harbor, tributary to the Chesapeake Bay
Basin: Chesapeake Bay, Atlantic Ocean & Small Coastal Basins
Subbasin: N/A
Section: 2 Class: II
Special Standards: a, NEW-20

9. Site Inspection:

A site inspection of the proposed dredging operation in Mathews was performed by Deborah Morgan, DEQ-KO on December 13, 2000.

10. Regulatory Comments:

Copies of the draft permit and supporting documentation have been mailed to the Virginia Marine Resources Commission (VMRC), East Central Environmental Engineering Field Office of the Virginia Department of Health (VDH); Division of Planning & Conservation Resources of the Virginia Department of Conservation and Recreation (DCR); Office of Plant & Pest Services of the Virginia Department of Agriculture and Consumer Services (VDACS); and Wildlife

Diversity of the Virginia Department of Game & Inland Fisheries (DGIF) for 45-day review and comment in accordance with Section 62.1-44.15:5.C of the Code of Virginia. None of these agencies had any objections to our reissuance of the permit.

The applicant received an extension of the Mathews County Wetlands Board permit until March 6, 2001. A VMRC permit was originally issued on June 6, 1991, and has been renewed until April 23, 2001.

11. Antidegradation:

A review of this project indicates that due to a lack of discharges to Winter Harbor, this stream is classified as Tier II. The material to be dredged from inside Winter Harbor is 80% fines and 20% sand, which will be pumped to a previously used, diked upland site south of the channel near the mouth of the creek. The dredged material from the outer portion of the channel in the Chesapeake Bay will be 99% sand, which will be placed along 4,500 feet of Winter Harbor beach north of the channel. The staff believes that existing instream uses and the level of water quality necessary to protect the existing uses shall be maintained and protected during construction of this project, provided the permittee abides with the conditions of the permit.

12. General Standard:

This project may result in negligible, temporary impacts to beneficial uses related to the propagation of aquatic life as defined in the general standard. Provided the permittee abides with the conditions of the permit, no substances shall enter State waters in concentrations, amounts or combinations that would contravene established standards or interfere with beneficial uses or are inimical or harmful to human, animal, plant, or aquatic life.

13. Special Standards:

Special Standard a refers to all open water or estuarine water waters capable of propagating shellfish or specific areas where public or leased, private shellfish beds are present. A fecal coliform standard of 14 n/100 ml or less is established for shellfish growing waters. A limitation or monitoring requirement for fecal coliform is not included in the permit since the proposed activities are not expected to result in a discharge of fecal coliform.

Special Standard NEW-20 refers to refers to the Nutrient Enriched Waters designation of the stream. Discharges of sewage and industrial waste to Nutrient Enriched Waters

may qualify for special nitrogen and phosphorus limits; however, the proposed activities are not expected to result in a discharge of nutrients.

14. Actions by U.S. Army
Corps of Engineers:

The Corps of Engineers Regulatory Branch does not have permit authority over Corps Federal Navigation Projects.

15. Notification:

Notification of application receipt was mailed to the Mathews County Administrator on November 8, 2000 in accordance with Section 62.1-44.15:4.D of the Code of Virginia. No riparian owner notification is necessary, since this is a permit reissuance.

A copy of the project's public notice was mailed to the Mathews County Administrator, the Middle Peninsula Planning District Commission, and the Chairman of the Mathews Board of Supervisors pursuant to Section 62.1-44.15:01 of the Code of Virginia. No comments were received in response.

The public notice was published in the Gloucester Mathews Gazette-Journal on April 19, 2001 and the 30-day comment period is up on May 21, 2001. No comments were received.

16. Staff Comments:

The State Water Control Board did not waive the requirement for a VWP permit for federal navigational projects.

The staff has determined that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, is consistent with the provisions of the Clean Water Act and the State Water Control Law.

The staff finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish or wildlife resources.

17. Permit Conditions:

Authorized Activities

Nos. 1 - 2 describes the activity that is being permitted and notes that additional impacts associated with this project may require modification of the permit and mitigation.

Site Specific Conditions

Nos. 3 through 17 - The following conditions relate specifically to the project and contain language for projects of this type from the latest approved special conditions list.

No. 18 - This condition was added to require the reasonable and prudent measures necessary to minimize take of the northeastern beach tiger beetle, as recommended in a biological review by the U.S. Fish and Wildlife Service dated September 14, 1999. This review was requested by the Corps.

Nos. 19 through 42 - Including sections: Conditions Applying to all Permits, Monitoring, and Reporting - These special conditions are from the agency updated standardized approved list and are included to ensure that the activities will be executed in a manner so that Water Quality Standards are maintained and sedimentation is minimized.

No. 19 - The fifteen-year term of the permit is considered necessary since the project will be conducted in three dredging cycles.

No. 31 - The administrative code differences are the 1977 water quality standards.

General Conditions:

General conditions are applied to all VWP permits as part of the permit boilerplate and are taken verbatim from the VWPP regulation.

These are contained in Part II, pages 1-5.

Changes Made In Response to Applicant's Review of Draft Permit:

After reviewing the draft permit, the Corps of Engineers requested that the draft permit special condition requiring sampling and reporting sample results for Dissolved Oxygen (DO) be removed from the permit. Based on previous experience with similar project activities and sites, the Corps did not believe that the dredging and disposal activities associated with this project would produce dissolved oxygen levels outside of the Water Quality Standards range of 4.0 (minimum) to 5.0 (daily average) for saltwater. The staff agreed with that assessment and deleted the DO monitoring special condition from the draft permit.

The Corps also requested that the permit special condition requiring monitoring for Total Suspended Solids (TSS) be modified to remove the requirement to sample and analyze the samples in accordance with EPA approved methods. The Corps provided a copy of the "Water Quality Sampling and Monitoring Controls" technical document the agency uses for sampling Total Suspended Solids during dredging projects. The staff reviewed this document and determined that the sampling protocols were adequate to quantify the amount of TSS produced during the dredging operation. This document is included as Attachment A of this fact sheet.

Water Quality Sampling and Monitoring Controls:

The contractor shall take all precautions that may be necessary to minimize the escape of dredged material into the navigable waters. Water samples of nearby navigable waters shall be taken after each change in tidal current flow up current from the dredge and placement area. These samples shall serve as the benchmark water quality standard for which measurements of samples taken in the vicinity down current of the dredging and placement areas shall be compared. Water samples from the water surface in the vicinity down current of the dredging and placement areas shall be taken as often as necessary to conform to the requirements as specified, but not less than once during each respective tidal current flow. Density tests (using an hydrometer) shall be performed on all work samples in a manner and at proposed locations as approved by the Contracting Officer.

All samples and their approximate location where taken shall be recorded by the Contractor and included with the Daily Report of Operations. The contractor shall provide constant monitoring of the placement operations when dredging and material placement operations are in progress. Monitoring personnel shall have fully functional two-way radio communications with the dredge operator at all times when dredging is in progress. Frequent communication checks shall be made to assure proper material placement during dredging operations. In the event of any communications failure or improper material placement, all dredging and placement operations shall be immediately suspended until communications are restored as approved by the Contracting Officer, or in the event of improper material placement, until proper material placement procedures are reestablished by the Contractor as approved by the Contracting Officer.

MAINTENANCE DREDGING
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA

PREPARED AND
ISSUED BY
DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
OPERATIONS BRANCH
WATERFIELD BUILDING
803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

TECHNICAL SPECIFICATIONS
MAINTENANCE DREDGING
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA

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These Divisions not used

SECTION 01005

SPECIAL WORK REQUIREMENTS AND RESTRICTIONS

12/01

PART 1 GENERAL

1.1 Special Work Requirements

The Contractor shall perform the scheduled work with a hydraulic dredge and pipeline and place the dredged material in the Government-furnished upland and shoreline placement areas as indicated. All dredging, transport and placement of dredged material under this contract shall be in compliance with all conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit, the Virginia Marine Resources Permit, and the Mathews County Wetlands Board Permit that are included as a part of this contract at the end of SECTION 01355 ENVIRONMENTAL PROTECTION. The contract plans and specifications have been prepared to comply with these permits which were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior approved in writing by the Contracting Officer, and any non-compliance with or violation of the conditions stated in the permits, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the permits noted herein may result in revocation of the permits for the project and may result in criminal and civil penalties against the Contractor. The Contractor shall not exceed a dredging depth to 9 feet below Corps of Engineers low water (CELW) as established by the Norfolk District. The Contractor shall not place dredged material on the shoreline placement area between the period of 16 March through 30 November.

1.1.1 Security and Public Safety of Work Areas

The dredging and placement areas are accessible to the general public; however, the Government will not undertake to exclude the public or restrict public access to the site during the work. The Contractor shall fully comply with the provisions of OSHA safe working practices and the Safety and Accident Prevention requirements of these specifications. The

Contractor shall employ the use of signs, barricades, barriers, flagmen, and any other devices and measures required to assure public and worker safety at the dredging and placement areas at all times. Unless directed otherwise, the Contractor may perform the scheduled work 24 hours a day, 7 days a week. All lighting associated with the project shall be limited to the immediate area of active construction only. Such lighting shall be shielded, low-pressure sodium vapor lights directed to the maximum extent practical away from populated areas and to avoid excessive illumination of the water.

1.1.2 Noise Control and Abatement

The Contractor shall employ the use of properly installed and maintained mufflers, silencers, and manufacturer's recommended sound suppressors on all plant, machinery, and equipment used on this work. The use of sound signals such as whistles, horns, or bells shall not be used if two-way radio communication can accomplish the required function. The Contractor shall not use sound signals, with the exception of those signals required for vessel operations by the U.S. Coast Guard, during the time between sunset and sunrise.

1.1.3 Cooperation with Other Contractors

During the period of this contract, other contracts may be in force for the construction of other features of work on or adjacent to the site of work being accomplished under this contract. The Contractor shall arrange his plant, and shall schedule and perform this work, so as to effectively cooperate with all other contractors and Government agencies.

1.1.4 Coordination Between Contractors

It shall be the responsibility of the Contractor on this contract to be fully informed of the extent of the limits of work to be performed by other contractors. Should there be any conflict between these limits, the Contractor shall immediately notify the Contracting Officer of the conflict, and the Contracting Officer's decision shall be final.

1.1.5 Order of Work

The Contractor shall accomplish the dredging at Winter Harbor in the following order:

- (a) Station 44+00 through Station 80+00 first

(b) Station 0+00 through Station 44+00 second

All dredging work shall be completed and accepted in Stations 44+00 through Station 80+00 prior to commencing any dredging work at Stations 0+00 through 44+00.

1.2 NOTIFICATIONS OF INTENT TO DREDGE AND REPORTS OF DREDGING

Notifications giving the dates and locations the Contractor intends to start dredging shall be prepared and sent to the agencies as specified below for each respective agency. Upon completion of each dredging item, the Contractor shall prepare a Report of Dredging giving all data as indicated and sent to the Virginia Department of Environmental Quality as specified. When the Contractor sends a Notification or Report to a respective agency, a copy shall at the same time be furnished to the Contracting Officer. The Contractor shall include the Virginia Water Protection (VWP) Permit Number on all Notifications and Reports.

1.2.1 Notification of Dredging to the Virginia Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482, in writing, at least 15 calendar days prior to commencement of dredging operations under this contract. The Contractor shall include the Virginia Water Protection (VWP) Permit Number on all correspondence and reports sent to the Department of Environmental Quality.

1.2.2 Report of Dredging to the Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482, in writing, within 30 calendar days of completion of dredging operations for each channel item. The Contractor shall include in the Report the following information to the Virginia Department of Environmental Quality:

(a) Date on which dredging operations started.

(b) Date on which dredging operations were completed.

(c) Amount of material dredged (in cubic yards).

1.2.3 Notification of Intent to Dredge to Virginia Marine Resources Commission - Habitat Management Division

The Contractor shall notify the Virginia Marine Resources Commission, Habitat Management Division, 2600 Washington Avenue, Post Office Box 756, Newport News, Virginia 23607-0756, in writing, at least 15 calendar days prior to commencement of dredging operations under this contract. The Contractor shall at the same time furnish a copy of the notice to the Contracting Officer. The Contractor shall include the Virginia Marine Resources Commission (VMRC) Permit Number on all correspondence and reports sent to the Virginia Marine Resources Commission.

1.3 PHYSICAL DATA

1.3.1 Physical Conditions Information

The physical conditions indicated on the drawings and in the specifications are the result of site investigations and surveys. Information and data furnished or referred to below is furnished for the Contractor's information; however, it shall be expressly understood that the Government will not be responsible for any interpretation or conclusion drawn from this information or data by the Contractor.

1.3.2 Weather Conditions Information

Complete weather forecasts, records and reports may be obtained from the National Weather Service in Wakefield, Virginia, telephone (757) 899-4200, Menu selection service or operator assisted as applicable. The Contractor shall satisfy himself as to the hazards likely to arise from the weather conditions during the dredging period.

1.3.3 Weather/Physical Conditions

The location of portions of the Winter Harbor channel are exposed to the Chesapeake Bay; therefore, the large fetch in the Easterly direction can result in wind and wave conditions that may cause suspension of work in the Channel. The approximate mean range of tide for the work area is 1.5 feet.

Tidal currents at any of the respective work areas are not of sufficient velocity to interfere with dredging operations.

1.3.4 Condition of Dredging Areas

The plans for dredging show the condition of the dredging area at the dates shown. There are not any known cables, pipes, bridges, or tunnels that cross the areas to be dredged. The dredging areas may contain trash, debris, and small obstructions not shown on the plans for dredging. There are privately owned structures, bulkheads, piers, docks, mooring piles, and other existing items in proximity to the areas to be dredged, and are in various conditions ranging from total deterioration to properly maintained. The Contractor shall exercise due care in all dredging and attendant plant operations to prevent damage to all structures, bulkheads, piers, docks, mooring piles, and any other existing items that remain in the work area during dredging operations.

1.3.5 Obstruction of Channel

The Government will not undertake to keep the area of channels free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act, approved 3 August 1917.

The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractors' plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage.

Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under this contract in navigable water or on shore.

1.3.6 Responsibility

The Contractor shall hold and save harmless the United States, its officers, and employees from all claims that may arise as a result of the Contractor's negligence in connection with the work performed under the contract, from noncompliance by the Contractor with the provisions of the contract drawings and specifications, or from the instruction of the Contracting Officer.

1.3.7 Channel Traffic

The traffic in the area of the work is expected to consist of shallow-draft commercial vessels, small craft engaged in the seafood industry, and small to medium size pleasure craft. The traffic is not expected to cause significant delays in the progress of dredging operations.

1.3.8 Oyster Grounds

Leased and public oyster grounds are present in the project area and are depicted on the contract drawings. As part of the Contractor's responsibility to layout the work, the boundaries of the oyster beds in the vicinity of the work areas shall be marked in the field by the licensed Professional Engineer or Surveyor. The boundary points shall be physically located with stakes or pipe and marked with orange flagging prior to dredging operations. These markings shall be maintained during the duration of dredging and placement operations and removed upon completion of the scheduled work. The locations shown for the oyster grounds are based on information furnished by the Virginia Marine Resources Commission. In order to avoid damage to oyster grounds, the Contractor shall not allow personnel or the operation of plant and attendant vessels, including placement or traversing of pipelines, across the bounds of the public and private leased oyster and shellfish grounds, except as approved by the Contracting Officer. To the maximum extent practical, the Contractor's work operations over and in the vicinity of the oyster grounds shall be at high tide. The Contractor shall submit for approval in writing with a detailed plan the layout for the proposed pipeline from the dredge to where the pipeline enters the confined placement area. Any pipeline across the bounds of the public and private leased oyster and shellfish grounds shall be floating.

1.3.9 Submerged Aquatic Vegetation

Submerged Aquatic Vegetation (SAV) exists within the vicinity of work. In order to avoid damage to SAV, the Contractor shall not allow personnel or the operation of plant and attendant vessels, including placement or traversing of pipelines across the SAV, except as approved by the Contracting Officer. To the maximum extent practical, the Contractor's work operations over and in the vicinity of SAV shall be at high tide. The

Contractor shall submit for approval in writing with a detailed plan the layout for the proposed pipeline from the dredge to where the pipeline crosses SAV. Any pipeline across SAV shall be floating.

1.4 LAYOUT OF WORK AND SURVEYS

1.4.1 General

The Contractor shall be responsible for the layout of all work and have all markings placed in the field marked by a licensed Professional Engineer or Surveyor currently licensed in the Commonwealth of Virginia. The markings shall be placed in the immediate work areas only and shall be removed once a work area has been accepted. The Government will establish the tide staff gauge within vicinity of the respective dredging areas. The in-place markings shall be verified by the Government before dredging and dredged material placement operations commence. The Contractor shall provide the Contracting Officer written notice at least 14 calendar days in advance of commencement of dredging and dredged material placement operations to assure the completion of the initial Government verification review. The Government shall verify all remaining markings as the dredging and dredged material placement operations are allowed to proceed. As applicable, the Government will furnish within 14 calendar days of receipt of a written request by the Contractor, the corner point coordinates for each contract dredging area or acceptance section, and the coordinates and monument descriptions for the existing horizontal control within vicinity of the work areas.

All requests shall be addressed to U.S. Army Corps of Engineers, Norfolk District, Operations Branch, Navigation Support and Survey Section, CENAO-TS-ON, 803 Front Street, Norfolk, Virginia 23510-1096. Point of contact concerning this request is Chief, Navigation Support and Survey Section, telephone (757) 441-7125, or FAX (757) 441-7664. The Contractor shall be responsible for using this information to dredge within the areas and prisms as shown, and to deposit the dredged material at the locations indicated. The Contractor shall establish and maintain at his own expense all markings of the dredging and placement areas and shall remove same upon completion of the work. The contract completion time will not be extended due to failure of the Contractor to adequately establish and maintain his markings of the work areas.

1.4.1.1 Electronic Survey and Positioning Systems

When the Contractor utilizes electronic survey and positioning systems to perform dredging and dredged material placement operations, all work accomplished with the use of the systems shall be reviewed and certified as accurate by the Contractor's Quality Control Manager. This signed certification shall be submitted as a part of the Daily Report of Operations in accordance with the requirements of SECTION 01451 to assure that all work performed with the use of the equipment and systems meets contract requirements.

1.4.2 Before Dredging Survey

The Contractor shall give the Contracting Officer written notice at least 14 calendar days prior to arrival of the dredge plant at the first work area or acceptance section, and shall furnish written notice at least 14 work days in advance of need for subsequent before dredging surveys. It is understood that the surveys made in response to notice by the Contractor will constitute the before dredging survey and that any subsequent surveys occasioned through Contractor delays will be charged against the Contractor at a rate of \$3,000 per day. The Contracting Officer will not be responsible for any delays in the commencement of work caused by incomplete surveys if the Contractor fails to provide adequate advance written notice as specified.

1.4.3 Datum and Bench Marks

The plane of reference shall be Corps of Engineers Low Water (CELW) as established by the Norfolk District, as used on the drawing and in these specifications. The benchmark for Winter Harbor is as follows:

BENCHMARK: "WINTER"
ELEVATION: 8.46 feet above CELW

The benchmark is situated in Mathews County, Virginia. To locate the benchmark, from the intersection of State Route 14 and State Route 608, at the Port of Haywood, travel East on Route 608 and continue to the public boat ramp at Winter Harbor. The station must be reached by boat. From the ramp, follow the channel east approximately 5,000 feet to its entrance at the Chesapeake Bay. The station is located on the North bank

approximately 20 feet above the ground surface, 10 feet East of a one-inch iron pipe, and 88.83 feet Northeast of a wooden pile tripod.

1.4.4 Use of Coast Guard Navigation Aid Structures

The Commander, Fifth Coast Guard District, has authorized the Norfolk District, Corps of Engineers, and its Contractors to use fixed Federal aids to navigation structures, established and maintained by the U. S. Coast Guard, for support of temporary dredging tide gauges when performing Federal dredging operations. If a Contractor chooses to use navigation aid structures for this purpose, he shall abide by the following requirements:

a. The Contractor shall advise the Commander, Fifth Coast Guard District, Aids to Navigation Branch, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704, in writing, of his intention to attach tide gauges to navigation aid and structures, prior to commencing a dredging project. This notice shall include the name of each aid to navigation to which tide gauges are to be attached, and the anticipated dates the gauges will be attached and removed. A copy of this notice shall be furnished at this time to the Contracting Officer.

b. The Contractor shall be required to remove any temporary tide gauges immediately upon completion of dredging operations and demobilization of dredging plant. The Contractor shall at his expense repair or replace any aids that he has damaged or destroyed as a result of the Contractor's use of such aids.

c. This provision refers only to Federal aids to navigation structures and does not authorize the Contractor to utilize aids that are not established and maintained by the U. S. Coast Guard. This provision also does not authorize the Contractor to utilize Federal navigation aid structures for any purposes other than the support of temporary tide gauges.

1.5 ACCOMMODATIONS AND SUBSISTENCE ABOARD DREDGE FOR CONSTRUCTION REPRESENTATIVES

1.5.1 Accommodations

(a) Work Space - The Contractor shall furnish regularly

to Government construction representatives on board the dredge a suitable working and storage space, equipped and maintained to the satisfaction of the Contracting Officer or his representative. As a minimum the facilities shall include a desk with chair for plan study, and a file drawer, approximately 15" by 24", capable of being locked with a padlock. The working space need not be a separate room, but shall be properly lighted, ventilated, and heated.

(b) Cellular Telephone and FAX Machine - The Contractor shall provide a cellular phone and FAX machine aboard the dredge which shall be made available for official use by the Government Inspectors on a 24-hour a day basis to exclusively conduct Government business and emergency calls.

1.5.2 Subsistence

If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when required, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The meals furnished will be paid for by the Government at a rate of \$5.00 for breakfast, \$5.00 for lunch, and \$14.00 for supper.

1.5.3 Costs

The entire cost to the Contractor for furnishing, equipping, and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the Contracting Officer will secure the facilities referred to above, and their costs will be deducted from payments due to the Contractor.

1.6 INSPECTION

1.6.1 General

The presence of the construction representative shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any construction representative, the use of such boats,

boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the borrow work areas.

b. To furnish, on the request of the Contracting Officer or any construction representative, suitable transportation from all points within the beach fill placement area, to and from the various pieces of plant and the staging areas, and within the material placement area as may be reasonably necessary in inspecting and supervising the beach fill work. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and any resultant cost incurred by the government will be deducted from any amounts due or to become due the Contractor.

1.6.2 Hours of Work

The Contractor will be allowed to perform work 24 hours per day, seven days per week, including holidays, for the entire performance period. Precautions for night work shall be coordinated with the Job Hazard Analysis. Adequate lighting in compliance with all OSHA Regulations and Coast Guard Regulations for thorough inspection of night operations and public safety shall be provided by the Contractor at his expense.

1.7 CONTINUITY OF WORK

Payment will not be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such areas, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the area intervening. The Contractor may be required to suspend dredging at any time when for any reason the gages or ranges cannot be seen or properly followed.

1.8 SHOALING

1.8.1 Shoaling Prior to Dredging

The drawings and quantity estimates are based on the condition of the dredging area at the time of the most recent surveys; however, the actual quantities to be dredged will be computed from surveys made immediately before dredging. Any shoaling that has developed, subsequent to the surveys indicated on the drawings and contiguous to the areas indicated to be dredged under this contract, shall be removed by the Contractor at the contract unit price for dredging, including any applicable unit price adjustments if so directed by the Contracting Officer. Any such shoaling within contiguous areas will be included as part of the required dredging prism for the purposes of CONTRACT CLAUSE "VARIATION IN ESTIMATED QUANTITIES".

1.8.2 Shoaling Subsequent to Dredging

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished basin, because of the natural lowering of the side slopes, redredging at contract price, including any applicable unit price adjustments, within the limit of available funds, may be done if agreeable to both the Contractor and the Contracting Officer.

1.9 FINAL EXAMINATION AND ACCEPTANCE

As soon as practicable after the completion of the entire work or any portion of the work which in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dredging at the contract rate for dredging, but if the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived at the discretion of the Contracting Officer. The Contractor shall provide adequate advance notice to the Contracting Officer of the completion of dredging of each acceptance section to insure prompt performance of the after dredging acceptance surveys. The Contractor shall provide the notice in writing at least 10 calendar days in advance of anticipated completion of each section of work. If the Contractor fails to provide this advance notice, the

Contracting Officer will not be responsible for any delays caused by incomplete surveys. The Contractor will be notified when soundings are to be made, and may accompany the survey party. When the area is found to be in satisfactory condition, it will be accepted. Should more than two sounding operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding, the cost of such third and any subsequent sounding operations will be charged against the Contractor at the rate of \$3,000 per day for each day in which the Government Plant is engaged in sounding or is en route to or from the site or held at or near the said site for such operations. Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

1.10 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65-feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Secretary of the Army and the Commandant, U. S. Coast Guard.

1.11 SAFETY AND ACCIDENT PREVENTION

1.11.1 Safety Plan

The contractor shall not commence work at a job-site prior to the Government's review of an acceptable contractor accident prevention plan per the US Army Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1) and discussion of the accident prevention plan at a pre-work meeting. Allow five days for Government review of the accident prevention plan.

1.11.2 Conflicts

The Contractor shall comply with Occupational Safety and Health Act (OSHA) Standards, Coast Guard, as well as the Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1). When a conflict exists between Corps of Engineers Safety and Health Requirements Manual, nationally recognized consensus standards, or the contract plans and specifications, the most stringent requirements as determined by the Contracting Officer will govern.

1.11.3 Corps of Engineers Standards

Corps of Engineers Manual EM 385-1-1, 1996 edition, is hereby supplemented or revised as follows.

1.11.3.1 Activity Hazard Analysis

Based on the construction schedule, the Contractor shall submit an activity hazard analysis of each major phase of work prior to entering that phase of activity. The analysis shall include major or minor hazards, as well as commonly recurring deficiencies that might possibly be encountered for that operation, and shall identify proposed methods and techniques of accomplishing each phase in a safe manner. The Project Superintendent and the Corps of Engineers Project Inspector shall sign the analysis. A copy of the analysis shall be kept on the job site and reviewed with employees during orientation and during weekly safety meetings.

1.11.3.2 Means of Escape for Personnel Quartered, or Working on Floating Plant

Two means of escape shall be provided for assembly, sleeping, and messing areas on floating plant. For areas involving 10 or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where nine or fewer persons are involved, one of the means of escape may be a window (minimum dimensions 24 inches by 36 inches) that leads to a different exit route.

1.11.3.3 Emergency Alarms and Signals

(a) Emergency Alarms - Alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to be out of sight

or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical-system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

(b) Fire Alarm Signals - The general fire alarm signal shall be in accordance with Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels.

(c) Abandon Ship Signals - The signal for abandon ship shall be in accordance with the reference cited in (b) above.

(d) Man-Overboard Signal - Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

1.11.3.4 Hurricane Plan

A detailed plan for protection and evacuation of personnel and plant in the event of an impending hurricane or storm shall be submitted for approval as a part of the Contractor's Accident Prevention Program. The plan shall include as a minimum:

(a) The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.

(b) The safe harbor for personnel and plant specifically identified.

(c) The name of the boat that will be used to move the plant, its type, capacity, speed, and availability.

(d) The estimated time necessary to move the plant to the safe harbor after movement is started.

1.11.3.5 Equipment and Machinery Operator Authorization

The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and equipment.

The list shall be maintained at the job site in a current status at all times.

1.11.3.6 Head Protection (Hard Hat)

The entire work site under this contract is designated as a hard hat area. The Contractor shall post the area in accordance with the requirements of EM 385-1-1, and shall insure that all prime and subcontractor personnel, vendors and visitors utilize hard hats while within the project area.

1.11.3.7 Attendance at Safety Meetings

In order to allow for maximum attendance at weekly tool box (Safety) meetings, and monthly supervisor meetings by Corps of Engineers personnel, Contractors shall notify the Contracting Officer 5 calendar days prior to the start of work, of the time and location of all such scheduled meetings. The contractor shall keep minutes and provide copies to all parties attending.

1.11.4 Dredge and Attendant Plant

1.11.4.1 Equipment and Machines

All operable equipment and machines, shall be checked for:

- (a) Manufacturer's safety instructions, permanent-mounted and easily read.

- (b) Guard Rails and life-lines at overboard access areas, as applicable.

- (c) Cover exposed moving parts with safety-guards to prevent someone from accidentally stepping or falling on them.

1.11.5 Dozers, Front-End Loaders, Backhoes, and Other Wheeled-Tract Machines

Dozers, front-end loaders, backhoes, and other wheeled-tract machines operated on the beach shall be equipped with rollover protection and seatbelts. All rotating or reciprocating parts, and any parts subject to high operational temperatures that are of such nature or so located as to be or become a hazard to the operating or attending personnel, shall be substantially guarded and insulated to the extent necessary to

eliminate the hazard. Walking or working surfaces and platforms shall be of an anti-skid type.

1.11.5.1 Checks

All front end loader-backhoe machines and other machines, such as tractors that utilize a backhoe attachment, shall be checked for:

(a) Exposed backhoe boom swing foot pedals.

(b) Backhoe boom swing lever that can be reached by a man standing on the ground or on the outrigger support bracket.

1.11.5.2 Controls

Where these conditions exist, guards shall be fabricated to:

(a) Cover over exposed foot pedals to prevent someone from accidentally stepping on them.

(b) Enclose the swing lever so as to preclude operation from the ground or from the outrigger support bracket.

1.11.6 Crawler-, Truck-, and Wheel-Mounted Cranes

(a) When a crane is performing duty cycle work (such as clamshell, dragline, grapple, or pile driving) it does not require anti-two block equipment. If the crane is required to make a non-duty cycle lift (for example, to lift a piece of equipment, a tool box, or supplies), it will be exempt from the anti-two block equipment requirements if the following procedures are implemented:

(1) an international orange warning device (warning flag, warning tape, or warning ball) is properly secured to the hoist line at a distance of 8 to 10 feet above the hoist rigging;

(2) the signalperson (or an individual designated as the signalperson) acts as a spotter to alert the crane operator with a "STOP" signal when the warning device approaches the boom tip and the crane operator ceases hoisting functions when alerted of this; and

(3) while the non-duty cycle lift is underway, the

signal person shall not stand under the load, shall have no duties other than signalperson, and shall comply with the signaling requirements of EM 385-1-1;

(b) Anti-two block devices are always required when hoisting personnel by crane or derrick.

1.11.7 Diving Operations

All diving operations shall be planned in accordance with the Corps of Engineers Safety Manual EM 385-1-1 and must be limited to those tasks that cannot be accomplished in any other manner. The Contractor shall submit for approval all information which may affect the work to be accomplished, including divers names, medical examination reports, qualifications of all divers and top-side tenders to be employed in the diving operations, plant and equipment to be employed on the work, and a written dive plan with sketches and narrative descriptions for each phase of the planned dive.

1.12 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

1.12.1 Costs

Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a Contractor or subcontractor at any tier shall be based on actual cost data when the Government can determine both ownership and operating costs for each piece of equipment or equipment groups of similar serial and series from the Contractor's accounting records. When both ownership and operating costs cannot be determined from the Contractor's accounting records, equipment costs shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule", Region II. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect at the time the work was performed shall apply.

1.12.2 Rentals

Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36 substantiated by certified copies of paid invoices. Rates for equipment rented from an organization under common control, lease-purchase or sale-leaseback arrangements will be determined using the schedule except that rental costs leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees are allowable. Costs for major repairs and overhaul are unallowable.

1.12.3 Data

When actual equipment costs are proposed and the total amount of the pricing action is over \$25,000, cost or pricing data shall be submitted on the Standard Form 1411, "Contract Pricing Proposal Cover Sheet". By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

1.13 BRIDGE-TO-BRIDGE RADIO COMMUNICATION

In order that radio communication may be made with passing vessels, all dredges engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio telephone equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.65 megahertz with low power output having a communication range of approximately ten miles. The Federal Communications Commission has approved the frequency.

1.13.1 Radio

The Contractor shall provide the Government construction representative a portable radio capable of communicating with the dredge for the duration of work under this contract. The Contractor shall maintain the radio as required.

1.14 NOTIFICATION OF COAST GUARD

Prior to commencement of work on this contract, the Contractor shall notify the Commander, Fifth Coast Guard District of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least 5 work days prior to the commencement of this contract.

1.14.1 Local Notice To Mariners

The Local Notice To Mariners (LNM) for the Fifth Coast Guard District is available by phone at (757) 398-6367, on the Internet at: <http://www.navcen.uscg.mil/lnm/d5/default.htm>, and e-mail address: ntm/d5oan@internet.uscg.mil. The LNM is the primary means for disseminating information concerning aids to navigation, hazards to navigation, and other items of marine information of interest to mariners on the waters of the United States, its territories, and possessions. These notices are essential to all navigators for the purpose of keeping their charts, light lists, Coast Pilots and other nautical publications up-to-date. These notices are published weekly. They may be obtained free of charge, by making application to the Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704. If the Contractor encounters any objects on the channel bottom during dredging operations or transport of his plant that could be a hazard to navigation, he shall notify the Coast Guard immediately as to location and at the same time notify the Contracting Officer.

1.14.2 Navigation Aids

The Contractor shall not relocate or move any aids to navigation that has been established by the U.S. Coast Guard. If it becomes necessary to have any aid to navigation moved in order to complete dredging operations under this contract, the Contractor shall notify the U.S. Coast Guard in writing at the address above with a copy to the Contracting Officer not less than 15 calendar days prior to such need for movement. The Contractor shall notify the U.S. Coast Guard of the approximate time the navigation aid may be relocated to its original position. All notifications to the U.S. Coast Guard shall at the same time be provided to the Contracting Officer and recorded in the Daily Report of Operations. In the event that the Contractor disturbs or damages any navigation aid during work operations, which includes during mobilization or

demobilization of his plant, the Contractor shall immediately stop the activity which disturbed or damaged the navigation aid, take immediate corrective action to prevent further disturbances or damage, and shall notify the Coast Guard immediately as to location, and at the same time notify the Contracting Officer.

1.15 ENVIRONMENTAL LITIGATION

1.15.1 Litigation

If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof. The term "environmental litigation" means, a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

1.16 HISTORICAL AND ARCHAEOLOGICAL FINDS

Federal legislation provides for the protection, preservation, and collection of scientific, prehistoric, historic, and archaeologic data, including relics and specimens that might otherwise be lost as a result of any Federal construction project. Should the Contractor, or any of the Contractor's employees, or parties operating or associated with the Contractor, in the performance of this contract discover evidence of possible scientific, prehistoric, historic, or archaeologic data, the Contractor shall immediately cease work

at that location, and notify the Contracting Officer, giving the location and nature of the findings. The Contractor shall forward written confirmation to the Contracting Officer as directed. The Contractor shall exercise care so as not to disturb or damage shipwrecks, artifacts or fossils uncovered during excavation, dredging and material placement operations, and shall provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition. Any person who, without written permission, injures, destroys, excavates, appropriates, moves or removes any historic or prehistoric artifact, object of antiquity, or archaeologic resource is subject to arrest and penalty of law. Where appropriate by reason of discovery, the Contracting Officer may order delays in the time of performance or changes in the work, or both. If such delays or changes are ordered, an equitable adjustment will be made in accordance with the applicable clauses of the contract.

1.17 SCHEDULING AND DETERMINATION OF PROGRESS

In accordance with the Contract Clauses, the Contractor shall submit for approval a practicable Progress Schedule at the Pre-Construction Conference specified in SECTION 01200. The Progress Schedule shall be prepared and certified as complete by the Contractor's Quality Control Representative in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed, arrival date of Contractor's plant to the job site, all activities scheduled prior to dredging and beach fill operations, start and completion dates for each beach fill acceptance section, and calendar days to completion of all work. An arrow shall represent each activity in the construction. The head to tail arrangement of arrows shall flow from left to right and shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. Each arrow representing an activity shall be annotated to show the activity description and duration. Contractor shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. This schedule will be the medium through which the timeliness of the Contractor's construction efforts is

appraised. When changes are authorized that result in contract time extensions, the Contractor shall submit a modified chart for approval by the Contracting Officer. The Contract Clause entitled "SCHEDULE FOR CONSTRUCTION CONTRACTS" with reference to overtime and extra shifts, may be invoked when the Contractor fails to start or complete work features or portions of same by the time indicated by the milestone dates of the approved progress chart, or when it is apparent to the Contracting Officer from the Contractor's actual progress that these dates will not be met. Neither on this chart nor on the periodic chart that the Contractor is required to prepare and submit, as described in "SCHEDULE FOR CONSTRUCTION CONTRACTS" of the Contract Clauses, shall the actual progress to be entered include or reflect any materials that may be on the site, but are not yet installed or incorporated in the work. For payment purposes only, an allowance will be made by the Contracting Officer of 100 percent of the invoiced cost of materials or equipment delivered to the site but not incorporated into the construction, pursuant to Contract Clause "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS". The Contractor's progress schedule shall include a chart of the scheduled work activities plotting scheduled completion percentage based on dollar value on one axis and time on the other axis. The actual progress shall be plotted on the required periodic chart submittals to indicate the percentage of work scheduled and actually completed. When quantity volume variations for a respective beach fill acceptance section falls below or exceeds the projected amount by 5% or more, the Contractor shall revise the chart to accurately reflect the impact of such variations. The Contractor shall submit revised copies of the Progress Schedule with charted updates for completion of beach fill acceptance sections weekly unless directed otherwise by the Contracting Officer.

1.18 PROFIT

1.18.1 Weighted Guidelines

Weighted guidelines method of determining profit shall be used on any equitable adjustment change order or modification issued under this contract. The profit factors, expressed as a percent, shall be as follows:

Factor	Rate	Weight	Value
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Degree of Risk	20
Relative difficulty of work	15
Size of Job	15
Period of performance	15
Contractor's investment	5
Assistance by Government	5
Subcontracting	25
	100

1.18.2 Values

Based on the circumstances of each procurement action, each of the above factors shall be weighted from .03 to .12 as indicated below. The value shall be obtained by multiplying the rate by the weight. The value column when totaled indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

1.18.2.1 Degree of Risk

Where the work involves no risk or the degree of risk is very small, the weighting should be .03; as the degree of risk increases, the weighting should be increased up to a maximum of .12. Lump sum items will have, generally, a higher weighted value than the unit price items for which quantities are provided. Other things to consider: the portion of the work to be done by subcontractors, nature of work, where work is to be performed, reasonableness of negotiated costs, amount of labor included in costs, and whether the negotiation is before or after performance of work.

1.18.2.2 Relative Difficulty of Work

If the work is most difficult and complex, the weighting should be .12 and should be proportionately reduced to .03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Some things to consider: the nature of the work, by whom it is to be done, where, and what is the time schedule.

1.18.2.3 Size of Job

All work not in excess of \$100,000 shall be weighted at .12. Work estimated between \$100,000 and \$5,000,000 shall be proportionately weighted from .12 to .05.

1.18.2.4 Periods of Performance

Jobs in excess of 24 months are to be weighted at .12. Jobs of lesser duration are to be proportionately weighted to a minimum of .03 for jobs not to exceed 30 days. No weight where additional time not required.

1.18.2.5 Contractor's Investment

To be weighted from .03 to .12 on the basis of below average, average, and above average. Things to consider: amount of subcontracting, mobilization payment item, Government furnished property, equipment and facilities, and expediting assistance.

1.18.2.6 Assistance by Government

To be weighted from .12 to .03 on the basis of average to above average. Things to consider: use of Government owned property, equipment and facilities, and expediting assistance.

1.18.2.7 Subcontracting

Shall be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted, the weighting is to be .03 and such weighting proportionately increased to .12 where all the work is performed by the Contractor's own forces.

1.19 PARTNERING

In order to most effectively accomplish this contract, the Government is willing to form a cohesive partnership with the Contractor. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done correctly, within budget, and on time. This partnership would be bilateral in make-up and partnership will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by all parties and will be shared equally with no change in contract price.

1.20 SUBCONTRACTS AND WORK COORDINATION

Contract Clauses "SUBCONTRACTS", "PERMITS AND RESPONSIBILITIES", and "MATERIAL AND WORKMANSHIP" are supplemented as follows:

(a) Divisions or sections of specifications are not intended to control the Contractor in dividing the work among subcontractors, or to limit work performed by any trade.

(b) Contractor shall be responsible for coordination of the work of the trades, subcontractors, and materials.

(c) The Government or its representative will not undertake to settle any difference between the Contractor and Contractor's subcontractors, or between subcontractors.

(d) The Government reserves the right to refuse to permit employment on the work or require dismissal from the work of any subcontractor who, by reason of previous unsatisfactory work on Corps of Engineers projects, or for any other reason is considered by the Contracting Officer to be incompetent or otherwise objectionable.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

SECTION 01200

PROJECT MEETINGS

12/01

PART 1 GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Notification

An authorized representative of the Contracting Officer will schedule and conduct a preconstruction conference in conjunction with the Quality Control Coordination Meeting within ten calendar days of the anticipated start of construction. The Contractor is encouraged to have an officer of his Company at the conference. This conference will be held at a location specified by the Contracting Officer's authorized representative.

1.1.2 Purpose

The purpose of this preconstruction conference is to enable the Contracting Officer's authorized representative to outline the procedures that will be followed by the Government in its administration of this construction contract and to discuss the performance that will be expected from the Contractor. This conference will allow the Contractor an opportunity to ask questions about the Government's supervision and inspection of contract work, about regulations, and any other questions he may have prior to starting the work. The Contracting Officer's authorized representative may invite City of Virginia Beach and other Government personnel to attend this conference.

1.1.3 Topics

The following is a list of items and plans for discussion during this conference. This is not considered to be a complete listing and may be expanded or revised at the discretion of the Contracting Officer. The Contractor shall submit the following items and plans for approval prior to the preconstruction conference. All points of contact for submittal of the items and plans noted shall be provided in the Contractor's notice of award. Any questions the Contractor may have concerning the plans or program will be resolved at this meeting.

- a. Authority of the Contracting Officer's Representative and organization.
- b. Contractor's Safety Plan.
- c. Contractor's Quality Control Plan.
- d. Contractor's Environmental Protection Plan.
- e. Contractor's Progress Schedule - In the form of a bar chart showing all phases and dates for the progress of the scheduled work, including timeliness and basis of pre-construction and post-construction surveys, work acceptance requirements, and progress payments relative to conformance to the progress schedule.
- f. Correspondence Procedures.
- g. Contractor Labor Standards Provisions.
- h. Contractor Plan of Operations - The Contractor shall indicate his method(s) of layout and accomplishment of the scheduled work, and his verification/certification procedures for accuracy of the respective areas of work to be accomplished.
- i. Contract Modifications and Administrative Procedures.
- j. Contractor's Job Layout and Storage Area Plan.
- k. Procedures for Processing Shop Drawings, if applicable.
- l. Payment Estimate Data and Procedures.
- m. Contractor Utilities.
- n. Security Requirements and Other Regulations, if applicable.
- o. Government Furnished Equipment, if applicable.
- p. Disposition of Salvage Property.
- q. Contractor Insurance Requirements.
- r. Value Engineering Program.

- s. Contractor Performance Evaluation.
- t. Contractor's Environmental Control Plan including
 - (1) Spill Control Plan.
 - (2) Recycling and Waste Minimization Plan.
 - (3) Contaminant Prevention Plan.
- u. Contractor Required Notification Procedures.
- v. Contractor's Submittal Register.

1.1.4 Approvals

The Contractor shall submit his Safety Plan, Quality Control Plan, and Environmental Protection Plan for review prior to this meeting. These plans may be approved or approved with comments at the conference. Construction work shall not proceed until after this meeting has been held, all specified Plans have been approved, and the Notice to Proceed has been received and acknowledged by the Contractor.

1.1.5 Minutes of the Meeting

The Government will prepare legibly written or typed minutes of the meeting and will provide the Contractor with a signed original for review and concurrence. The minutes shall include all items discussed at the meeting and the Government will make all corrections provided by the Contractor and resubmit the corrected minutes to the Contractor within seven days.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01270

MEASUREMENT AND PAYMENT

12/01

PART 1 GENERAL

1.1 REFERENCES (Not Used)

1.2 SUBMITTALS (Not Used)

1.3 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.3.1 Base Bid Payment Item No. 0001 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of all of the Contractor's dredging plant and equipment as defined below will be paid for at the contract lump sum price for this item. Sixty percent of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent will be paid to the Contractor upon completion of demobilization. In the event the Contracting Officer considers that the amount in this item, sixty percent which represents mobilization and forty percent which represents demobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the Contracting Officer will result in payment of actual mobilization costs, as determined

by the Contracting Officer, at the completion of mobilization, and actual demobilization costs, as determined by the Contracting Officer, at the completion of demobilization. The determination of the Contracting Officer is not subject to appeal.

1.3.1.1 Mobilization

Mobilization shall include all costs for operations accomplished prior to commencement of actual dredging operations. This shall include transfer of dredge, attendant plant, and equipment to site, all initial installation of pipe, and any other associated work that is necessary in advance of the actual dredging operations.

1.3.1.2 Demobilization

Demobilization shall include general preparation for transfer of plant to its home base, removal of pipelines, cleanup of site of work including the placement area, and transfer of plant to its home base.

1.3.2 Base Bid Payment Item No. 0002 Preparation, Maintenance and Final Grading of Placement Area with Dike Height of 24 feet Above CELW

Payment for this item shall include all cost associated with the preparation, maintenance, and final grading of the placement area. The Contractor shall perform clearing, grubbing and disposal of all grubbed materials offsite, excavation and removal of earth and debris, demolition, removal and proper disposal of piping and spillbox, construction of dike including spillbox, drainage piping, accessway, and the ditching required for proper drainage at the outlet pipe, and operation of the spillbox for the duration of the contract.

1.4 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control,

environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.4.1 Base Bid Payment Item No. 0003 Dredging Winter Harbor Channel and Turning Basin

Payment to be made for costs associated with dredging shall include the cost of removal and placement of material as indicated and specified exclusive of the mobilization and demobilization, and placement area preparation and maintenance as defined above. The total amount of material removed and to be paid for under these payment items will be measured by the cubic yard in place by computing the volume between the bottom surface shown by soundings of the last surveys made before dredging, and the bottom surface shown by the soundings of surveys made as soon as practicable after the work has been completed. The volume for measurement and payment shall include the material within the limits of overdepth and side slopes described in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" of SECTION 02881, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Material", below. The drawings are believed to accurately represent conditions at the time of the surveys indicated. New soundings will be taken immediately before dredging. The Contractor's unit price for dredging, based on the above method of computation of the quantity for payment, shall include his evaluation of shoaling, other natural changes in the waterway, or changes caused by the Contractor's operations that might occur during the period between the surveys before dredging and the surveys for acceptance of the work. Computations for payment purposes will be made by the Government using the average end area method and electronic data processing machines. Determination of quantities removed and the deductions made to determine quantities in place to be paid for in the areas specified, after having once been made, will not be reopened except on evidence of collusion, fraud, or obvious error.

1.5 MISPLACED MATERIAL

Any material that is deposited elsewhere than in places designated or approved by the Contracting Officer will not be paid for, and the Contractor may be required to remove such misplaced material and deposit it where directed by the Contracting Officer at the Contractor's expense.

1.6 EXCESSIVE DREDGING

Material taken from outside the specific areas to be dredged or beyond the limits as extended in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" will be considered as excessive overdepth dredging, or excessive side slope dredging, for which payment will not be made. Nothing in these specifications shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of Paragraphs SHOALING and FINAL EXAMINATION AND ACCEPTANCE of SECTION 01005.

1.7 MONTHLY PARTIAL PAYMENTS

Monthly partial payments will be based on estimated quantities determined by the Contracting Officer.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES

12/01

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION AND CLASSIFICATION

The Contractor shall insure all submittals as required in the Contract are submitted to the government as identified and in accordance with the procedures specified in this Section. Submittals may be required for work features and procedures in the specifications that are not listed or classified as indicated below. The Contractor shall still be required to list these submittals in his Submittal Register as required by the respective specification, and designate the submittal and action required in the register.

1.1.1 Submittal Identification

Submittals required are identified by SD numbers and titles as follows:

- SD-01 Preconstruction Submittals
- SD-02 Shop Drawings
- SD-03 Product Data
- SD-04 Samples
- SD-05 Design Data
- SD-06 Test Reports
- SD-07 Certificates
- SD-08 Manufacturer's Instructions
- SD-09 Manufacturer's Field Reports
- SD-10 Operation and Maintenance Data
- SD-11 Closeout Submittals

1.1.2 Submittal Classification

Submittals are classified as follows:

a. Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the

Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

b. Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.2 APPROVAL OF SUBMITTALS

The approval of submittals by the Contracting Officer's Representative (COR), shall not be construed as a complete check, but will indicate only that the general method of construction, work scheduling, and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for the dimensions, layout, and satisfactory construction of all work as indicated and specified. After submittals have been approved by the COR, resubmittal for the purpose of changing the approved Work Plan, Progress Schedule, designated Acceptance Sections, or for any other reason, will not be given consideration unless accompanied by an explanation as to why a change is necessary.

1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the COR and promptly furnish a corrected submittal with the Daily CQC Report as specified for the initial submittal. If the Contractor considers any correction indicated on the submittal(s) to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be given at the same time to the COR.

1.4 WITHHOLDING OF PAYMENT

Payment for any part of the scheduled work accomplished by the Contractor, including transportation of the Contractor's plant to or from the site of the work, will not be made if required approvals for all parts of the scheduled work have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall submit all items required and specified in these specifications, and as may be required by other portions of the scheduled work. Proposed deviations from the contract requirements shall be clearly identified. The required submittals shall be listed in the Contractor's Work Plan and on the Contractor's Submittal Register Form 4288-R. All requirements of submittals shall be coordinated with SECTION 01451. Any questions regarding submittals required of the Contractor will be discussed at the Preconstruction Conference specified in SECTION 01200. At this Conference, and during the progress of the work, the COR may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Dimensions and units of weights and measures used on all submittals shall be the same as indicated and specified. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved as complete by the CQC representative as specified in SECTION 01451.

3.2 SCHEDULING

Submittals covering component items forming a system or items that are interrelated, such as access/egress to the work area, and delivery/storage of materials prior to construction of features shall be scheduled to be coordinated with the requirements specified and submitted concurrently.

3.2.1 Submittal and Report Identification

All submittals and reports shall be complete, properly marked, adequately detailed, and identified with location of occurrence in the respective specification section with paragraph number, drawing number and location, and respective Plan or Report requirement, as applicable. The Contractor's CQC representative shall sign and date each submittal and report as complete.

3.3 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this SECTION is a sample Submittal Register (ENG Form 4288-R) showing those plans, lists, and items of equipment and materials for which submittals are required by the specifications. The Contractor is informed this sample form may not list all submittals that may be required of the Contractor; however, the Contractor shall utilize this form as a guide to

provide, with his CQC Plan for approval, a complete Submittal Register listing all submittals required for the duration of the contract. The Submittal Register shall consist of individual pages representing the respective Specification Sections as shown in the attached sample. Columns "d" through "q" of the sample form indicate the method the Contractor is to use in identification of his submittals. In the respective Specification Sections and when so directed by specified requirements in other parts of the contract for a particular type of submittal, the Classification status to be inserted in Columns "p" and "q" is indicated. The Contractor's Quality Control Representative shall certify in writing as part of the CGC Plan the appropriate designation for all submittals has been made. The remainder of columns and how they are to be utilized during administration of the contract will be addressed at the Pre-Construction Conference as noted in SECTION 01200.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

At the end of this SECTION is a sample Transmittal Form (ENG Form 4025) which shall be used for transmittal coordination of all submittals. This form shall be completed by the Contractor identifying each item to be submitted. Special care shall be exercised to ensure proper listing of the date of the submittal transmittal, specification section and paragraph number pertinent to the data submitted for each item, and numerical sequence coordination with the Submittal Register Form 4288-R, Column "b".

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Instructions For Completing ENG FORM 4025-R, Mar 95

A. Enter date the submittal is issued.

B. Enter the Transmittal Number under which the submittal was made.

The Transmittal Number shall have the following format:

A-B.C

Where: A is the specification section

B is a consecutive number where 1 would be the first transmittal under the given specification section, 2 would be the second transmittal, etc.

C is a consecutive number identifying resubmittals. Number 1 would be the first resubmittal, 2 the second, etc.

Examples of Transmittal Numbers under Specification Section 01451:

01451-1
01451-2
01451-1.1 (first resubmittal of 01451-1)
01451-3

C. Enter name and address of Corps of Engineers reviewing office.

D. Enter name and address of Contractor.

E. Enter contract number.

F. If this is the first submittal of information for this item number, check the box for "New Submittal". If not, check the box for "Resubmittal".

G. If the "Resubmittal" box is checked, enter the previous Transmittal No.

H. Enter the specification section that applies to this Transmittal Form. A separate Transmittal Form shall be used for submittals under separate sections of the specifications.

I. Enter name and location of project.

J. Indicate whether the submittal is "For Information Only (FIO)" or for "Government Approval (Gov't Approval)".

K. Enter the Item No. as identified on the Submittal Register.

L. Enter the Description of the item submitted as identified on the Submittal Register.

M. Enter information as necessary. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certification."

N. Enter the number of copies of submittal data attached.

O. Enter the specification paragraph number as identified on the Submittal Register using the following format:

Spec. Section - Paragraph number

P. Enter information as necessary.

Q. Enter Contractor Action Code. See reverse side of ENG Form 4025 for applicable codes.

R. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications. Attach a written statement describing the variation.

S. Review code assigned by the Government reviewer.

T. Remarks from the Contractor or Government review comments. Government review comments may also be placed on a separate sheet of paper.

U. Signature of Contractor reviewer.

V. Number of enclosures being returned to the Contractor by the Government reviewer

W. Signature and title of Government approving authority.

X. Date of review by the Government.

Other: In submitting manufacturer's literature or similar information, the Contractor shall clearly identify the item proposed for use.

[illegible]

CONTRACT NO.
(Example only)

CONTRACT NO.

CONTRACTOR

(Contractor must prepare his own register)

01005

[illegible]

CONTRACT NO.
(Example only)

CONTRACTOR

(Contractor must prepare his own register)

SPECIFICATION SECTION

01355

01355

[illegible]

CONTRACT NO.	(Example only)
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TITLE AND LOCATION

SPECIFICATION SECTION

(contractor must prepare his own register)

[illegible]

CONTRACT NO.
(Example only)

TITLE AND LOCATION

SPECIFICATION SECTION

(contractor must prepare his own register)

[illegible]

CONTRACT NO.
(Example only)

TITLE AND LOCATION

Dredge Fuel Pier, Yacht Marina, and Back River

(Contractor must prepare his own register)

SPECIFICATION SECTION

02881

[illegible]

CONTRACT NO. _____
(Example only)

SPECIFICATION SECTION

[illegible]

SECTION 01355

ENVIRONMENTAL PROTECTION FOR DREDGING

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328 Definitions

40 CFR 68 Chemical Accident Prevention Provisions

40 CFR 152-186 Pesticide Programs

40 CFR 260 Hazardous Waste Management System: General

40 CFR 261 Identification and Listing of Hazardous Waste

40 CFR 262 Standards Applicable to Generators of Hazardous Waste

40 CFR 279 Standards for the Management of Used Oil

40 CFR 302 Designation, Reportable Quantities, and Notification

40 CFR 355 Emergency Planning and Notification

49 CFR 171-178 Hazardous Materials Regulations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(1996) U.S. Army Corps on Engineers Safety and Health Requirements Manual

WETLAND MANUAL Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

1.2 DEFINITIONS

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally, or historically.

1.2.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

1.2.3 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.4 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

1.3 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

1.3.1 Protection of Features

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause that are not specifically identified on the drawings or otherwise specified as environmental features requiring protection. The Contractor shall protect those environmental features as indicated and specified, in spite of interference that their preservation may cause to the Contractor's work under the contract.

1.3.2 Special Environmental Requirements (Permits)

This section supplements the Contractor's responsibility under the contract clause "PERMITS AND RESPONSIBILITIES" to the extent that the Government has already obtained environmental permits for the required dredging and dredged material placement. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development. All dredging, transport and placement of dredged material under this contract shall be in strict compliance with the conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit that is included as a part of this contract at the end of this SECTION. The contract plans and specifications have been prepared to comply with these permits which were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior approved in writing by the Contracting Officer, or any non-compliance with or violation of the conditions stated in the permit noted herein, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for any of these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the

permits noted herein may result in revocation of the permit for the project and may result in criminal and civil penalties against the Contractor.

1.4 ENVIRONMENTAL PROTECTION PLAN

As a part of the Contractor's Work Plan, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. This Environmental Protection Plan shall consist of a written narrative, as well as any supplemental drawings, documents, and photographs required to verify the Contractor's work will be in accordance with all laws and regulations governing the work as indicated and specified. The Contractor shall submit this plan and all supplementary data for approval at the Preconstruction Conference as noted in SECTION 01200. The Contractor will be informed in writing of any revisions as may be required by the Contracting Officer and submit a final plan for final approval not later than 5 calendar days prior to start of scheduled construction activities. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions that the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance by the Contracting Officer of the Contractor's Environmental Protection Plan covering the work to be performed. The environmental protection plan shall comply with the requirements of EM 385-1-1 and include, but not be limited to, the following:

1.4.1 List of State and Local Laws and Regulations

The Contractor shall provide, as part of the Environmental Protection Plan, a list of all State and local environmental laws and regulations that apply to the construction operations under the Contract.

1.4.2 Spill Control Plan

The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include

the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

a. The name of the individual who shall be responsible for implementing and supervising the containment and cleanup.

b. Training requirements for Contractor's personnel and methods of accomplishing the training.

c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who shall report any spills or hazardous substance releases and who shall follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center at 1-800-424-8802) if a reportable quantity spill occurs. The individual shall then immediately notify the DEQ Kilbuck Regional Office at (804) 527-5020 if the notification is being made between the hours of 8:15 a.m. and 5:00 p.m. Monday through Friday, or at (800) 468-8892 during all other times, if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.4.3 Recycling and Waste Minimization Plan

The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

a. The Contractor shall participate in State and local

government sponsored recycling programs to reduce the volume of solid waste materials at the source.

1.4.4 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.4.5 Environmental Monitoring

The Contractor shall include in the plan, as coordinated with the Job Hazard Analysis and required in the specifications, the details of environmental monitoring requirements and a description of how this monitoring will be accomplished under the laws and regulations governing the work.

1.4.6 Preconstruction Survey

The Contractor shall perform a survey of the project site with the Contracting Officer and take photographs showing existing environmental conditions in and adjacent to the site. The results of this survey shall be prepared by the Contractor and copies included in the plan. The preconstruction survey shall identify requirements for the following:

- a. Methods for protection of features to be preserved within authorized work areas like trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archaeological, and cultural resources.
- b. Procedures to be implemented to provide the required environmental protection, to comply with the applicable laws and regulations, and to correct pollution due to accident, natural causes, or failure to follow the procedures of the environmental protection plan.
- c. Location of the solid waste disposal area.
- d. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossings,

material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

e. Traffic control plan including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather and dredged material placement operations, and the amount of mud transported onto paved public roads by vehicles or runoff.

f. Methods of protecting surface and ground water during construction activities.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 Wetlands and Natural Habitat

Use of the Contractor's plant to construct the scheduled work, including the associated use of ropes, cables, or guys over wetlands and in natural habitat areas, shall be scheduled in a manner to disturb the marsh and natural habitat areas to the minimum necessary to accomplish the work. Heavy equipment use in wetlands must be avoided if at all possible. Any Contractor equipment used in wetlands shall be placed on mats, and as site conditions may warrant, any additional measures as required to minimize soil and plant root disturbance sufficient to preserve preconstruction vegetation density and grade elevations. All mats and other protective measures shall be removed as soon as the segment of work is completed. Any damage to wetlands or natural habitat areas shall be returned to its original contours and restored to original vegetative state within 30 days at no additional expense to the Government. The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the previously mentioned Federal, State or local laws or regulations, permits, and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action when approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspensions.

3.1.2 U.S. Department of Agriculture (USDA) Quarantined Considerations

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

3.1.3 Disposal of Solid Wastes

Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials. Solid waste shall be placed in containers and disposed on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste and dispose in compliance with Federal, State, and local requirements.

3.1.4 Disposal of Contractor-Generated Hazardous Wastes

Hazardous wastes are hazardous substances as defined in 40 CFR 261, or as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from Government property within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

3.1.5 Fuels and Lubricants

Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with Federal, State, and local laws and regulations. The Contractor shall not perform fueling or lubrication of any equipment while that equipment is on the beach.

3.2 PROTECTION OF WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.2.1 Monitoring of Water Areas Affected by Construction Activities

The Contractor shall perform monitoring, inspections, sampling and testing, reporting, and record keeping as indicated and specified.

3.3 INSPECTION

If the Contracting Officer notifies the Contractor in writing of any observed noncompliance with contract requirements or Federal, State, or local laws and regulations, the Contractor shall inform the Contracting Officer of proposed corrective action and immediately take such action to correct the noncompliance. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action is taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

3.5 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel as a part of the weekly toolbox meetings. The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall

also be discussed. Other items to be discussed shall include recognition and protection of archaeological sites and artifacts, wildlife and waterfowl habitats, and construction material placement operations.

3.6 PROTECTION OF MARINE ANIMALS, WILDLIFE AND VEGETATION

The Contractor is informed that the dredging areas are in a portion of Virginia frequented by migratory birds and is a native habitat for eagles, hawks, egrets, herons, pelicans, terns, and other wildlife that are identified as either threatened or endangered species protected by Federal law or species of special concern for Commonwealth of Virginia agencies. If, in the performance of this contract, evidence of the possible disturbance to any such migratory bird or listed species may occur, the Contractor shall notify the Contracting Officer immediately, giving the location and nature of the findings. The Contractor shall advise all personnel associated with the operation of the vessels and plant of the civil and criminal provisions of the Endangered Species Act, the Migratory Bird Act, and the Marine Mammal Protection Act. The Contractor shall comply with all laws and regulations governing the work and the provisions set forth in this Section. In the event that endangered or protected species are affected by this work, the work under this contract may be suspended or terminated as determined by the Contracting Officer. All crew members of the dredge and attendant plant operators shall be required to read and certify in writing they are aware of the contents of this specification and the Contractor's Environmental Protection Plan. Copies of this Section and the Environmental Protection Plan, including a posting warning of the civil and criminal liabilities that violators are subject to for non-compliance to the requirements of them, shall be clearly posted with other required postings on-site for employees.

3.6.1 Suspected Fish Kills

The Contractor shall immediately report any suspected fish kills to the Contracting Officer. The individual reporting the suspected fish kill shall then immediately notify the DEQ Kilmarnock Regional Office at (804) 527-5020 if the notification is being made between the hours of 8:15 a.m. and 5:00 p.m. Monday through Friday, or at (800) 468-8892 during all other times.

-- End of Section --



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE

4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
<http://www.deq.state.va.us>

May 31, 2001

Dennis H. Treacy
Director

Garard Socley, Jr.
Piedmont Regional Director

Mr. Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

RE: VWP Permit No. 00-1670

Dear Mr. Vann:

In accordance with your application, we have enclosed the original and one copy of the Virginia Water Protection Permit for the proposed maintenance dredging of the Winter Harbor Federal Navigation Channel in Mathews County, Virginia, pursuant to the Virginia Water Protection Permit (9 VAC 25-210 et seq) and Section 401 of the Clean Water Act Amendments of 1977, Public Law 95-217.

The provisions and conditions contained therein according to Section 401(a)(1) of the Clean Water Act requires that:

"any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge in the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act."

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Mr. Ronald G. Vann, P.E.

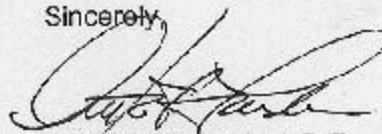
Page 2

Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies. Alternatively, any owner under §§ 62.1-44.16, 62.1-44.17 and 62.1-44.19 of the State Water Control Law aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in § 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

Please retain the copy and forward the original permit to the Norfolk District, Corps of Engineers, Fort Norfolk, 803 Front Street, Norfolk, Virginia 23510, ATTN: Permits Section.

If you have any questions, please advise us.

Sincerely,



Curtis J. Linderman, P.E.
Water Permits Manager

Enclosures

cc: DEQ-VWPP File

VMRC - Environmental Division

U.S. Army Corps of Engineers, Norfolk District

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, VA 23060

SUBJECT: REISSUANCE OF VIRGINIA WATER PROTECTION PERMIT NO. 00-1670

TO: James J. Golden
Deputy Regional Director

FROM: Debra J. Barnes via Curtis J. Linderman, P.E.
Permit Engineer Water Permits Manager *CJL*

DATE: May 22, 2001

COPIES: VMRC, COE, Applicant, File

Legal Name, Address: Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U. S. Army Corps of Engineers - Norfolk District
803 Front Street
Norfolk, VA 23510

Application Submitted by: Ronald G. Vann, P.E.
Chief, Operations Branch
U. S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510

Application Date: Received: September 7, 2000; Revisions on January 5, 2001 and April 6, 2001
Complete: April 6, 2001
Fee received: N/A

Type of Project: The applicant proposes to dredge (maintenance dredge) Winter Harbor channel by the hydraulic method. The channel is proposed to be dredged to a depth of -9 feet MLLW (to include advance maintenance and overdepth) and bottom width of 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each for the next two cycles, with no greater than 275,000 cubic yards over a 15-year period. The

dredged material from inside Winter Harbor will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. The sandy material dredged from the outer portion of the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.

Project Location:

Stream: Winter Harbor, tributary to the Chesapeake Bay
Basin: Chesapeake Bay, Atlantic Ocean & Small Coastal Basins
Subbasin: N/A
Section: 2 Class: II
Special Standards: a, NEW-20

Public Notice:

The public notice was published in the Gloucester Mathews Gazette-Journal on April 19, 2001. No comments from the general public were received.

Action by the U.S. Army
Corps of Engineers:

The Corps of Engineers Regulatory Branch does not have permit authority over Corps Federal Navigation projects.

Staff Comments:

The Virginia Department of Health, Virginia Department of Agriculture and Consumer Services, Virginia Department of Conservation and Recreation, Virginia Department of Game and Inland Fisheries, and Virginia Department of Marine Resources reviewed the draft permit. None of these agencies had any objections to our issuance of the permit.

A previous permit for this activity (91-0133) was issued on March 7, 1991 and will expire on March 7, 2001. Permit fees are not required for maintenance dredging of federal navigation channels (Section 62.1-4.16:6 of the Code of Virginia).

There are no proposed impacts to vegetated tidal wetlands. There will be impacts to subaqueous land contained in the 8,500 foot federal navigation channel, 3.5 acres of impact to non-vegetated tidal wetlands on Winter Harbor beach from the shoreline disposal of the outer channel dredged material, and adverse impacts to the northeastern beach tiger beetle population along 4,500 feet of Winter Harbor beach north of the channel. These impacts are to be the same as previously authorized by permit 91-0133.

The staff anticipates no adverse effect on water quality provided the applicant adheres to the permit conditions.

Staff Recommendations:

The staff recommends that the following be approved:

- (1) The attached Virginia Water Protection Permit and conditions.
- (2) Direction for the staff to reissue VWP Permit Number 00-1670.

Approved: _____

James J. Golden

Date: _____

5-31-01



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP Permit No. 00-1670

Effective Date: May 31, 2001

Expiration Date: May 31, 2015

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA WATER PROTECTION PERMIT

PURSUANT TO SECTION 401 OF THE CLEAN WATER ACT

AND STATE WATER CONTROL LAW

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Board has determined that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, is consistent with the provisions of the Clean Water Act and the State Water Control Law. The Board finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources.

Permittee: Mr. Ronald G. Vanni, P.E. - Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers

Address: 803 Front Street
Norfolk, Virginia 23510

Activity: Winter Harbor, from the 12-foot contour in the Chesapeake Bay into
Winter Harbor to a point just east of the present public landing area
in Mathews County, Virginia.

Activity Description: The applicant proposes to maintenance dredge the Winter Harbor Federal
Navigation Project Channel (maximum 8,500 feet long), by hydraulic method to a depth
of -9 ft. MLLW (to include advance maintenance and overdepth) and a bottom width of 100
feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area
of the turning basin, which is located at the public landing, shall not exceed 400 feet
square. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand
inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the
channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each
for the next two cycles, for a total of 275,000 cubic yards over the 15-year permit term. The
dredged material from inside Winter Harbor will be pumped to a previously used, 11-acre
diked upland site near the mouth of the creek. The sandy material from the outer portion of
the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions, and Part II - General Conditions.

James J. Giddens (Sr.)
Director, Department of Environmental Quality

5-31-01

Date

Authorized Activities

1. This permit authorizes the maintenance dredging of the Winter Harbor Federal Navigation Project Channel by hydraulic method as indicated in the Joint Permit Application dated September 6, 2000 (received on September 21, 2000), and supporting documentation received on January 5, 2001 and April 6, 2001, which was deemed complete on April 6, 2001. Dredged sand spoils from the outer channel will be placed along 4,500 feet of Winter Harbor beach north of the channel. Dredged spoils from inside the channel will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek.
2. Any additional impacts to State waters associated with this project may require modification of this permit and mitigation.

Site Specific Dredging Conditions

3. The double handling of dredged material in State waters shall not be permitted.
4. All dredged materials pumped by hydraulic method via pipeline to the disposal area shall be done in such a manner as to prevent leakage or discharge into State waters. In the event of a ruptured pipeline, the Department of Environmental Quality-Kilmarnock Office (DEQ-KO) shall be notified immediately and dredging/disposal operations shall immediately cease until repairs are accomplished.
5. If evidence of impaired water quality, including fish kills, is observed during the dredging, dredging operations shall cease and the DEQ-KO (804-435-3181) shall be notified immediately.
6. All dredging shall be accomplished by hydraulic methods.
7. The first dredging cycle may remove 125,000 cubic yards – the last two cycles may remove 75,000 cubic yards each, with no greater than 275,000 cubic yards of material removed over the term of this permit.
8. Dredging is permitted to a maximum allowable depth of -9 feet Mean Lower Low Water (MLLW) (to include advance maintenance and allowable overdepth).
9. The proposed entrance channel bottom width dredge cut shall not exceed 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 linear feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance.

10. The dredged material from the inner channel will be pumped by pipeline to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. There will be a return flow to State waters from this site. The sandy material dredged from the outer channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.
11. A post dredge bathymetric survey shall be submitted to the DEQ-KO within 30 days following completion of each dredging cycle.
12. The dredged material dewatering area shall be of adequate size to contain the dredged material and to allow for dewatering and settling out of sediment prior to discharge back into State waters.
13. The dredged material dewatering area shall utilize an earthen berm and/or straw bale covered with filter fabric along the edge of the area to contain the dredged material, and shall be properly stabilized prior to placing the dredged material within the containment area.
14. To prevent erosion and scouring of the shoreline, a rip-rap apron shall be placed at the outfall pipe at the point of discharge into State waters.
15. The dewatering structure shall remain in place until all dredged material has fully dewatered.
16. Ground cover or seeding shall be applied to the outside bank of the earthen berm within 7 days after constructing the berm and stabilized within 30 days to minimize soil runoff.
17. Overtopping of the dredge spoil containment berms with dredge spoil shall be prohibited.
18. During dredging of the outer channel and the placement of material along the 4,500 feet of shoreline, the following measures are required to minimize take of the northeastern beach tiger beetle:
 - (a) Dredged material shall be placed on Winter Harbor beach only during December 1 through March 15 of any year.
 - (b) Dredged material shall be placed no deeper than 1.5 feet in the upper end of the intertidal zone to the back beach.
 - (c) Use of heavy equipment on the beach is prohibited – vehicular traffic shall be allowed only when absolutely necessary, and no refueling of equipment of vehicles shall occur on the beach.
 - (d) Human activity on the beach during construction shall be minimized.

Conditions Applicable to all Permits

19. This permit is valid for **fifteen years** from the date of reissuance. Reissuance of the permit may be necessary if any portion of the authorized activities or any permit requirement (including mitigation) has not been completed. The VWPP Regulation (9 VAC 25-210-80) requires submittal of an application for reissuance no less than 180 days prior to the expiration date of the permit.
20. All fill material shall be clean and free of contaminants in toxic concentrations or amounts in accordance with all Department of Environmental Quality Regulations.
21. Wet or uncured concrete shall be prohibited from entry into State waters.
22. All materials (including fill, construction debris, and excavated and woody materials) temporarily stockpiled in wetlands shall be placed on mats, immediately stabilized to prevent entry into State waters, managed such that leachate does not enter State waters, and completely removed within 30 days following completion of that construction activity. Disturbed areas shall be returned to original contours, stabilized within 30 days following removal of the stockpile, and restored to the original vegetated state.
23. All non-impacted wetlands within 50 feet of any clearing, grading, and/or filling activities shall be clearly flagged or demarcated for the life of the construction activity within that area. The permittee shall notify all contractors that these marked areas are wetlands where no excavation or filling is to occur.
24. Equipment in temporarily-impacted wetland areas shall be placed on mats. Mats shall be removed as soon as that work is complete, and disturbed areas shall be returned to original contour and stabilized within 30 days and restored to the original vegetated state.
25. All utility line work in State waters shall be performed in such a manner as to minimize disturbance, and the area must be returned to its original contours and stabilized.
26. Erosion and sedimentation controls shall be designed in accordance with the current Virginia Department of Conservation and Recreation (DCR) Erosion and Sedimentation Control Handbook. These controls shall be placed prior to clearing and grading and maintained in good working order to minimize impacts to waters. These controls shall remain in place until the area stabilizes.
27. All denuded areas shall be properly stabilized in accordance with the current DCR Erosion and Sedimentation Control Handbook.
28. All construction and demolition activities associated with this project shall be

accomplished in such a manner that construction and/or waste materials do not enter State waters.

29. Project activities shall not disrupt the movement of aquatic life, unless authorized by this permit.
30. No machinery may enter flowing waters in connection with this project unless authorized by this permit.
31. Activities authorized by this permit shall be accomplished to maintain general water quality criteria (9 VAC 25-260-20) and applicable provisions 9 VAC 25-260-50 through 9 VAC 25-260-70. Should these limits be violated, dredging activities shall halt and DEQ shall be notified immediately. A corrective action plan, schedule, and monitoring plan shall be submitted to the DEQ-KO within 5 days of the violation.

Monitoring

32. Properly labeled photographs (to include date and time, name and signature of the person taking the photograph, and permit number) shall be taken during each dredging cycle clearly depicting the dredging equipment in operation.
33. Properly labeled photographs (to include date and time, name and signature of the person taking the photograph, and permit number) of the disposal site shall be taken after completion of each dredging cycle and as soon as the dredge spoil material has stabilized.
34. Total Suspended Solids (TSS) shall be monitored using grab samples to capture maximum Total Suspended Solids concentrations down current of the dredge and at the return flow of the inner channel spoils disposal area, as specified in the "Water Quality Sampling and Monitoring Controls" section of the Corps of Engineers dredging specifications. Copies of the Daily Report showing the results of the sampling and sample locations will be provided as specified in No. 38 of this permit.

Reporting

35. **Written communications** required by this permit shall be submitted to the **Department of Environmental Quality, Kilmarnock Office (DEQ-KO), P. O. Box 669, Kilmarnock, Virginia 22482.** Please include your permit number, 00-0210, in all correspondence with our office.
36. **The DEQ-KO shall be notified in writing by certified letter at least ten days prior to the start of each dredging cycle.** Notification shall include identification of the impact area at which work will occur and a projected schedule for completing work at each permitted impact area.

37. **Photographs detailed in Special Conditions No. 32 and 33, above, shall be submitted to the DEQ-KO within 30 days of being taken.**
38. **The Corps of Engineers' Inspection Group Summary of Daily Operations Reports shall be submitted to the DEQ-KO VWPP staff on Friday of every week, for the preceding week, during dredge or discharge operations. Results of all water quality monitoring required by this permit shall be submitted to DEQ by the 10th of the month following completion of each dredging cycle.**
39. **Exceedances of State Water Quality Standards shall be reported within 24 hours to the DEQ-KO (804-435-3181). After normal business hours, call the DEQ-Piedmont Regional Office at 804-527-5020.**
40. **The permittee shall report any fish kills or spills of oil or fuel immediately upon discovery. The permittee and his contractors shall employ measures to prevent spills of fuels and lubricants into State waters. The DEQ-Piedmont Regional office shall be notified (804-527-5020) if spills or fish kills occur Monday through Friday between the hours of 8:15 a.m. to 5:00 p.m., otherwise oil spills or fish kills shall be reported to the Virginia Department of Emergency Services (1-800-468-8892).**
41. **When unusual or potentially threatening conditions are encountered which require debris removal or involve potentially toxic substances, the permittee shall notify the DEQ-KO staff in writing. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure is prohibited until approved by DEQ.**
42. **All submittals required by this permit shall contain the following, signed, certification statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in these regulations shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

1. The permittee shall take all reasonable steps to
 - a) avoid all adverse environmental impact which could result from the activity,
 - b) where avoidance is impractical, minimize the adverse environmental impact, and
 - c) where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;
2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology; or
3. When the circumstances on which the previous permit was based have materially and substantially changed or special studies conducted by the Department or permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit. The permittee shall submit a new application 180 days prior to any modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or
2. Violate or lead to the violation of the terms and conditions of the permit or the water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.

I. Right of Entry

The permittee shall allow authorized State and Federal representatives, upon the presentation of credentials at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;
2. To inspect any facilities, operations, or practices (including monitoring equipment) regulated or required under the permit;
3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;
2. The notice of the proposed transfer includes a written agreement between the existing and proposed new owner containing a specific date of transfer of the permit responsibility, coverage and liability between them; and
3. The Department of Environmental Quality does not within the 30 day time period notify the existing owner of its intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The applicant shall notify the Department of Environmental Quality of any modification of this project and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;
3. When a change is made in the promulgated standards or regulations on which the permit was based;
4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;
5. When an effluent standard or prohibition for toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;
6. When changes occur which are subject to "reopener clauses" in the permit.
7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State water Control Law Sections 62.1-242 through 253, during the term of the permit;
8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;
9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or
10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;
2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant

facts at any time;

3. The permittee's violation of a special or judicial order;
4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,
2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

VWP PERMITS PROGRAM
FACT SHEET

1. Legal name and Address: Winter Harbor Federal Navigation Channel Project
c/o Ronald G. Vann, P.E. - U.S. ACOE
803 Front Street
Norfolk, Virginia 23510
2. Application Submitted By: Ronald G. Vann, P.E.
Chief, Waterways and Ports Branch
U.S. Army Corps of Engineers
803 Front Street
Norfolk, Virginia 23510
3. Application Date: Received: September 7, 2000; Revisions on January 5, 2001
and April 6, 2001
Complete: April 6, 2001
4. Permit Fee: Not Applicable. Permit fees are not required for maintenance dredging of federal navigation channels (Section 62.1-4.16:6 of the Code of Virginia).
5. Project Description: The U. S. Army Corps of Engineers has applied for a permit to maintain dredge Winter Harbor channel by the hydraulic method. The channel is proposed to be dredged to a depth of -9 feet Mean Lower Low Water (to include advance maintenance and overdepth) and bottom width of 100 feet with a 3 to 1 side slope, except for the 20 foot overcut at the mouth. The dredge area of the turning basin, which is located at the public landing, shall not exceed 400 feet square. The maximum channel length shall be 8,500 feet. The shoaled mouth of the creek will be overcut approximately 20 feet to provide advance maintenance. Quantities are proposed to be 125,000 cubic yards (80% fines and 20% sand inside Winter Harbor and 99% clean sand with trace fines from the outer portion of the channel in the Chesapeake Bay) for the first dredging cycle, and 75,000 cubic yards each for the next two dredging cycles, with no greater than 275,000 cubic yards over a 15-year period. The dredged material from inside Winter Harbor will be pumped to a previously used 11-acre, diked upland site south of the channel near the mouth of the creek. The sandy material dredged from the outer portion of the channel will be placed along 4,500 feet of Winter Harbor beach north of the channel.
6. Project Impacts: There are no proposed impacts to vegetated tidal wetlands. There will be impacts to subaqueous land contained in the 8,500 foot federal navigation channel, 3.5 acres of impact to

non-vegetated tidal wetlands on Winter Harbor beach from the shoreline disposal of the outer channel dredged material, and adverse impacts to the northeastern beach tiger beetle population along 4,500 feet of Winter Harbor beach north of the channel. These impacts are to be the same as previously authorized by permit #91-0133.

7. Mitigation of Impacts:

No mitigation is required, since there are no proposed impacts to vegetated tidal wetlands. To minimize take of the northeastern beach tiger beetle during dredging of the outer channel and placement of the dredged material on 3.5 acres of non-vegetated tidal wetlands on Winter Harbor beach along the 4,500 feet of Chesapeake Bay shoreline north of the channel, the permit requires that construction activities be conducted from December 1 through March 15. It is believed that impacts will be temporary in nature and recovery of the beneficial use and the northeastern beach tiger beetle population is assured, so mitigation is not necessary.

8. Project Location:

The Winter Harbor Federal Navigation Project channel dredging project is located at Winter Harbor Haven in Mathews County, Virginia. Directions: From Mathews, Route 14 to Route 608, follow to the end of the road.

Topo Maps: Mathews and New Point Comfort Quadrangles
HUC Code: 02080102
Stream: Winter Harbor, tributary to the Chesapeake Bay
Basin: Chesapeake Bay, Atlantic Ocean & Small Coastal Basins
Subbasin: N/A
Section: 2 Class: II
Special Standards: a, NEW-20

9. Site Inspection:

A site inspection of the proposed dredging operation in Mathews was performed by Deborah Morgan, DEQ-KO on December 13, 2000.

10. Regulatory Comments:

Copies of the draft permit and supporting documentation have been mailed to the Virginia Marine Resources Commission (VMRC), East Central Environmental Engineering Field Office of the Virginia Department of Health (VDH); Division of Planning & Conservation Resources of the Virginia Department of Conservation and Recreation (DCR); Office of Plant & Pest Services of the Virginia Department of Agriculture and Consumer Services (VDACS); and Wildlife

Diversity of the Virginia Department of Game & Inland Fisheries (DGIF) for 45-day review and comment in accordance with Section 62.1-44.15:5.C of the Code of Virginia. None of these agencies had any objections to our reissuance of the permit.

The applicant received an extension of the Mathews County Wetlands Board permit until March 6, 2001. A VMRC permit was originally issued on June 6, 1991, and has been renewed until April 23, 2001.

11. Antidegradation:

A review of this project indicates that due to a lack of discharges to Winter Harbor, this stream is classified as Tier II. The material to be dredged from inside Winter Harbor is 80% fines and 20% sand, which will be pumped to a previously used, diked upland site south of the channel near the mouth of the creek. The dredged material from the outer portion of the channel in the Chesapeake Bay will be 99% sand, which will be placed along 4,500 feet of Winter Harbor beach north of the channel. The staff believes that existing instream uses and the level of water quality necessary to protect the existing uses shall be maintained and protected during construction of this project, provided the permittee abides with the conditions of the permit.

12. General Standard:

This project may result in negligible, temporary impacts to beneficial uses related to the propagation of aquatic life as defined in the general standard. Provided the permittee abides with the conditions of the permit, no substances shall enter State waters in concentrations, amounts or combinations that would contravene established standards or interfere with beneficial uses or are inimical or harmful to human, animal, plant, or aquatic life.

13. Special Standards:

Special Standard a refers to all open water or estuarine water waters capable of propagating shellfish or specific areas where public or leased, private shellfish beds are present. A fecal coliform standard of 14 n/100 ml or less is established for shellfish growing waters. A limitation or monitoring requirement for fecal coliform is not included in the permit since the proposed activities are not expected to result in a discharge of fecal coliform.

Special Standard NEW-20 refers to refers to the Nutrient Enriched Waters designation of the stream. Discharges of sewage and industrial waste to Nutrient Enriched Waters

may qualify for special nitrogen and phosphorus limits; however, the proposed activities are not expected to result in a discharge of nutrients.

14. Actions by U.S. Army
Corps of Engineers:

The Corps of Engineers Regulatory Branch does not have permit authority over Corps Federal Navigation Projects.

15. Notification:

Notification of application receipt was mailed to the Mathews County Administrator on November 8, 2000 in accordance with Section 62.1-44.15:4.D of the Code of Virginia. No riparian owner notification is necessary, since this is a permit reissuance.

A copy of the project's public notice was mailed to the Mathews County Administrator, the Middle Peninsula Planning District Commission, and the Chairman of the Mathews Board of Supervisors pursuant to Section 62.1-44.15:01 of the Code of Virginia. No comments were received in response.

The public notice was published in the Gloucester Mathews Gazette-Journal on April 19, 2001 and the 30-day comment period is up on May 21, 2001. No comments were received.

16. Staff Comments:

The State Water Control Board did not waive the requirement for a VWP permit for federal navigational projects.

The staff has determined that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, is consistent with the provisions of the Clean Water Act and the State Water Control Law.

The staff finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish or wildlife resources.

17. Permit Conditions:

Authorized Activities

Nos. 1 - 2 describes the activity that is being permitted and notes that additional impacts associated with this project may require modification of the permit and mitigation.

Site Specific Conditions

Nos. 3 through 17 - The following conditions relate specifically to the project and contain language for projects of this type from the latest approved special conditions list.

No. 18 - This condition was added to require the reasonable and prudent measures necessary to minimize take of the northeastern beach tiger beetle, as recommended in a biological review by the U.S. Fish and Wildlife Service dated September 14, 1999. This review was requested by the Corps.

Nos. 19 through 42 - Including sections: Conditions Applying to all Permits, Monitoring, and Reporting - These special conditions are from the agency updated standardized approved list and are included to ensure that the activities will be executed in a manner so that Water Quality Standards are maintained and sedimentation is minimized.

No. 19 - The fifteen-year term of the permit is considered necessary since the project will be conducted in three dredging cycles.

No. 31 - The administrative code differences are the 1977 water quality standards.

General Conditions:

General conditions are applied to all VWP permits as part of the permit boilerplate and are taken verbatim from the VWPP regulation.

These are contained in Part II, pages 1-5.

Changes Made In Response to Applicant's Review of Draft Permit:

After reviewing the draft permit, the Corps of Engineers requested that the draft permit special condition requiring sampling and reporting sample results for Dissolved Oxygen (DO) be removed from the permit. Based on previous experience with similar project activities and sites, the Corps did not believe that the dredging and disposal activities associated with this project would produce dissolved oxygen levels outside of the Water Quality Standards range of 4.0 (minimum) to 5.0 (daily average) for saltwater. The staff agreed with that assessment and deleted the DO monitoring special condition from the draft permit.

The Corps also requested that the permit special condition requiring monitoring for Total Suspended Solids (TSS) be modified to remove the requirement to sample and analyze the samples in accordance with EPA approved methods. The Corps provided a copy of the "Water Quality Sampling and Monitoring Controls" technical document the agency uses for sampling Total Suspended Solids during dredging projects. The staff reviewed this document and determined that the sampling protocols were adequate to quantify the amount of TSS produced during the dredging operation. This document is included as Attachment A of this fact sheet.

Water Quality Sampling and Monitoring Controls:

The contractor shall take all precautions that may be necessary to minimize the escape of dredged material into the navigable waters. Water samples of nearby navigable waters shall be taken after each change in tidal current flow up current from the dredge and placement area. These samples shall serve as the benchmark water quality standard for which measurements of samples taken in the vicinity down current of the dredging and placement areas shall be compared. Water samples from the water surface in the vicinity down current of the dredging and placement areas shall be taken as often as necessary to conform to the requirements as specified, but not less than once during each respective tidal current flow. Density tests (using an hydrometer) shall be performed on all work samples in a manner and at proposed locations as approved by the Contracting Officer.

All samples and their approximate location where taken shall be recorded by the Contractor and included with the Daily Report of Operations. The contractor shall provide constant monitoring of the placement operations when dredging and material placement operations are in progress. Monitoring personnel shall have fully functional two-way radio communications with the dredge operator at all times when dredging is in progress. Frequent communication checks shall be made to assure proper material placement during dredging operations. In the event of any communications failure or improper material placement, all dredging and placement operations shall be immediately suspended until communications are restored as approved by the Contracting Officer, or in the event of improper material placement, until proper material placement procedures are reestablished by the Contractor as approved by the Contracting Officer.

COMMONWEALTH OF VIRGINIA MARINE RESOURCES COMMISSION PERMIT

The Commonwealth of Virginia, Marine Resources Commission, hereinafter referred to as the Commission, on this 24th day of April 2001, hereby grants unto:

**U. S. Army Corps of Engineers
Attn: Ronald G. Vann, P.E.
Chief, Operations Branch
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, Va. 23510-1096**

hereinafter referred to as the Permittee, permission to:

X Encroach in, on, or over State-owned subaqueous bottoms pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

____ Use or develop tidal wetlands pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

Permittee is hereby authorized to hydraulically place, over a five year period, approximately fifty thousand (50,000) cubic yards of sandy dredged material resulting from the routine maintenance dredging of the Winter Harbor Federal Project Channel, along approximately four thousand five-hundred (4,500) linear feet of shoreline and State-owned subaqueous bottomland along the Chesapeake Bay in Mathews County. All activities authorized herein shall be accomplished in conformance with plans and undated drawings received September 7, 2001, which are attached and made a part of this permit.

This permit is granted subject to the following conditions:

- (1) The work authorized by this permit shall be completed by April 24, 2006. The Permittee shall notify the Commission when the project is completed. The completion date may be extended by the Commission in its discretion. Any such application for extension of time shall be in writing prior to the above completion date and shall specify the reason for such extension and the expected date of completion of construction. All other conditions remain in effect until revoked by the Commission or the General Assembly.
- (2) This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.
- (3) The duly authorized agents of the Commission shall have the right to enter upon the premises at reasonable times, for the purpose of inspecting the work being done pursuant to this permit.
- (4) The Permittee shall comply with the water quality standards as established by the Department of Environmental Quality, Water Division, and all other applicable laws, ordinances, rules and regulations affecting the conduct of the project. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits or authority for the projects.
- (5) This permit shall not be transferred without written consent of the Commission.
- (6) This permit shall not affect or interfere with the right vouchsafed to the people of Virginia concerning fishing, fowling and the catching of and taking of oysters and other shellfish in and from the bottom of acres and waters not included within the terms of this permit.
- (7) The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties and wetlands and upon the natural resources of the Commonwealth.
- (8) This permit may be revoked at any time by the Commission upon the failure of the Permittee to comply with any of the terms and conditions hereof or at the will of the General Assembly of Virginia.
- (9) There is expressly excluded from the permit any portion of the waters within the boundaries of the Bayler Survey.
- (10) This permit is subject to any lease of oyster planting ground in effect on the date of this permit. Nothing in this permit shall be construed as allowing the Permittee to encroach on any lease without the consent of the leaseholder. The Permittee shall be liable for any damages to such lease.
- (11) The issuance of this permit does not confer upon the Permittee any interest or title to the beds of the waters.
- (12) All structures authorized by this permit which are not maintained in good repair shall be completely removed from State-owned bottom within three (3) months after notification by the Commission.
- (13) The Permittee agrees to comply with all of the terms and conditions as set forth in this permit and that the project will be accomplished within the boundaries as outlined in the plans attached hereto. Any encroachment beyond the limits of this permit shall constitute a Class 1 misdemeanor.
- (14) This permit authorizes no claim to archaeological artifacts which may be encountered during the course of construction. If, however, archaeological remains are encountered, the Permittee agrees to notify the Commission, who will in turn notify the Department of Historic Resources. The Permittee further agrees to cooperate with agencies of the Commonwealth in the recovery of archaeological remains if deemed necessary.
- (15) If any loss or damage to the Commonwealth is caused or contributed to, in whole or in part, by the Permittee arising from the establishment, operation, or maintenance of said project, the liability of the Permittee therefore shall be determined in accordance with the applicable provisions of the Federal Tort Claims Act or August 2, 1946, as amended.

The following special conditions are imposed on this permit:

- (16) The yellow placard accompanying this permit document must be conspicuously displayed at the work site throughout the construction phase of the authorized activity.
- (17) Permittee agrees to notify the Commission a minimum of 15 days prior to the start of the construction activities authorized by this permit.

A permit issuing fee of: \$100.00

and a royalty of: N/A

for a total of \$100.00

This permit consists of 5 sheets.

PERMITTEE

Permittee's signature is affixed hereto as evidence of acceptance of all of the terms and conditions herein.

In cases where the Permittee is a corporation, agency or political jurisdiction, please assure that the individual who signs for the Permittee has proper authorization to bind the organization to the financial and performance obligations which result from activity authorized by this permit.

PERMITTEE

Accepted for U. S. Army Corps of Engineers

19th day of July, 2001By Ronald D. Vann Chief, Operations Branch
(Name) (Title)State of Virginia
City (or County) of Charlottesville to-wit:I, Angalee W. Haroke a Notary Public in and for said City (or County) and State hereby certify that
Ronald D. Vann Permittee, whose name is signed to the foregoing, has acknowledged the
same before me in my City (or County) and State aforesaid.

Given under my hand this 19 day of July, 2001

My Commission Expires:

My Commission Expires August 31, 2004

Notary Public

Angalee W. Haroke

COMMISSION

IN WITNESS WHEREOF, the Commonwealth of Virginia, Marine Resources Commission has caused these presents to be executed in its behalf by Robert W. Grabb, Chief
(Name) (Title) Marine Resources Commission

26th day of July, 2001by Robert W. Grabb

State of Virginia

City of Newport News, to wit:

I, Audrey M. Nichols, a Notary Public within and for said City, State of Virginia, hereby certify that
Robert W. Grabb, whose name is signed to the foregoing, bearing the 24th day of April
2001, has acknowledged the same before me in City aforesaid.

Given under my hand this 26th day of July, 2001

My Commission Expires: 4-30-03

Notary Public

Audrey M. Nichols

SEP 7 2000

255

shoreline placement extends northward approximately 4500 ft.

**CHESAPEAKE
BAY**

- LEGAL -

Channel area to be dredged
with shoreline placement

channel area to be dredged
with upland placement.

management area
purview of statute

Stearline element

DEPARTMENT OF THE ARMY

MASSACHUSETTS DISTRICT, CORPS OF ENGINEERS

NOFOLK, VIRGINIA

WINTER HARBOR

MATHES COUNTY, VIRGINIA

APPROXIMATE SCALE : " = 700'

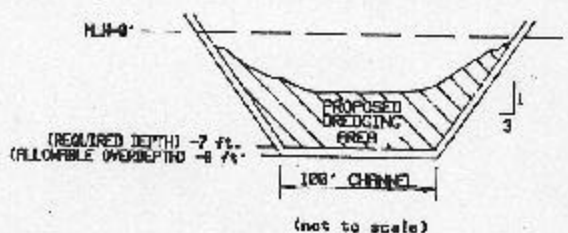
WINTER HARBOR

MATHEWS COUNTY, VIRGINIA

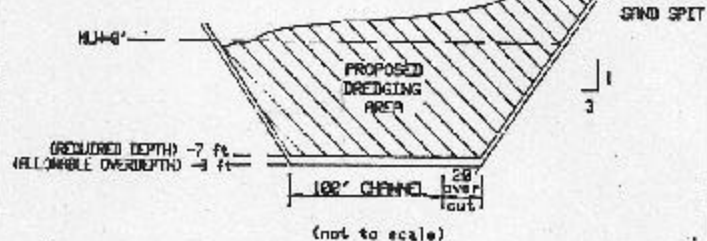
DREDGING AREAS

TYPICAL SECTIONS

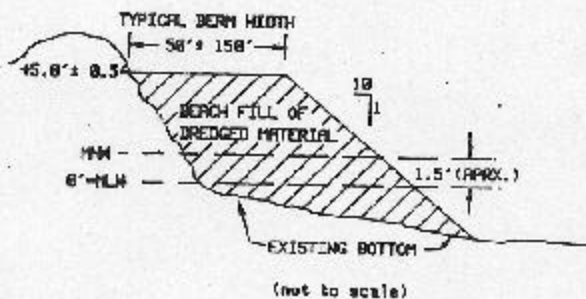
TYPICAL CHANNEL WIDTH



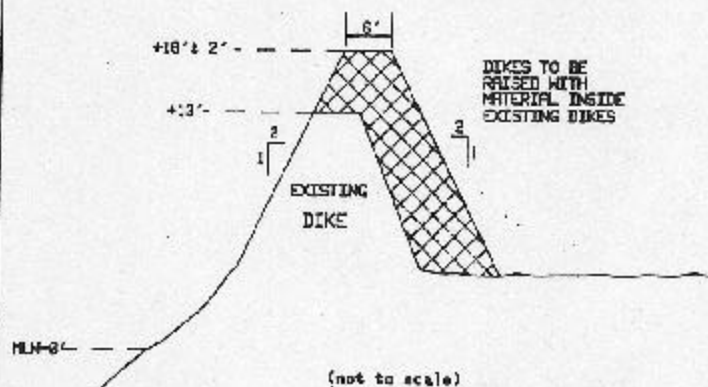
MOUTH OF CREEK



DREDGED MATERIAL
SHORELINE PLACEMENT



UPLAND PLACEMENT
DIKE



MARINE RESOURCES COMMISSION
APPROVED
SEP 7 2000
RECEIVED



Permit # 00-1670

Commonwealth of Virginia Marine Resources Commission Authorization

A Permit has been issued to:

U. S. Army Corps of Engineers
Attn: Ronald G. Vann, P.E.
Chief, Operations Branch
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096

The Permittee is hereby authorized to:

to hydraulically place, over a five year period, approximately fifty thousand (50,000) cubic yards of sandy dredged material resulting from the routine maintenance dredging of the Winter Harbor Federal Project Channel, along approximately four thousand five-hundred (4,500) linear feet of shoreline and State-owned subaqueous bottomland along the Chesapeake Bay in Mathews County.

Issuance Date: April 24, 2001

Expiration Date: April 24, 2006

Commissioner or Designee

This Notice Must Be Conspicuously Displayed At Site Of Work

MATHEWS COUNTY WETLANDS BOARD PERMIT

Pursuant to Chapter 13, Section 28.2-1300 through Section 28.2-1320, of the Code of Virginia, 1950, as amended, the Mathews County Wetlands Zoning Board, hereinafter referred to as the Board, hereby grants unto Ronald G. Vann, P.E., Chief Operations Branch, Norfolk District, Corps of Engineers, 803 Front Street, Norfolk VA 23510-1096, hereinafter referred to as the Permittee, permission to undertake the following described project:

(description of project and location)

To dredge Winter Harbor and place the sandy portion of the dredge spoils along 4500 feet of the Chesapeake Bay shoreline north of the channel per attached drawings dated received 9/7/00.

For a more complete description of said project, reference is hereby made to the Permittee's Application for Wetlands Permit, **Wetlands Application #00-1679-15**; however, information on the Permittee's Permit supersedes any conflicting information on the application.

This permit is granted subject to the following terms and conditions:

1. Permittee shall comply with all applicable laws, ordinances, rules and regulations affecting the conduct of the project. Failure to comply may lead to revocation of this permit. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits of authority required for the project.
2. The duly authorized agents of the Board shall have the right to enter upon the premises at any reasonable time for the purpose of inspecting the work being done pursuant to this permit.
3. This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.
4. The permittee agrees to indemnify and save harmless the Commonwealth of Virginia and the County of Mathews from any liability arising from the establishment, operation or maintenance of said project.
5. The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties, wetlands, and the natural resources of the County of Mathews, including implementation of sediment control measures such as silt fences and/or straw bales as needed. Failure to comply may lead to revocation of this permit.
6. This permit shall not be transferred without the prior written approval of the Board.

7. The project, approved by the Board on **March 7, 2001**, shall be completed in 18 months after which time this permit shall be void; however, upon proper application to the Board, the time for the completion of the project may be extended by the Board at its discretion. Any such application for extension of time shall be in writing prior to the expiration date hereof and shall specify the reasons for such extension and the expected date of completion of the project. **Expiration date of this project is September 5, 2002.**

8. This permit may be revoked at any time by the Board upon the failure of the Permittee to comply with any of the terms and conditions herein, including description of project.

IN WITNESS WHEREOF, the Mathews County Wetlands Zoning Board has caused these presents to be executed on its behalf by **Kenneth P. Kurkowski, Chairman** or **Ms. Sherry C. Ashe, Wetlands Administration**. The signature of **Ronald G. Vann** is affixed hereto as evidence of his/her acceptance of the terms and conditions hereof.

PERMITTEE OR AGENT

Ronald G. Vann

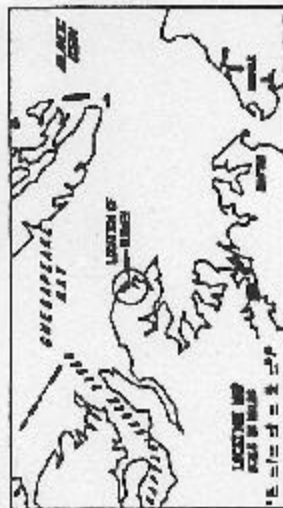
MATHEWS COUNTY WETLANDS BOARD

Sherry C. AsheSTATE OF VIRGINIA, CITY/COUNTY OF unincorporated, to-wit:The foregoing instrument was acknowledged before me this 23 day of March, 2001,by Angalee GanskeMy Commission expires: My Commission Expires August 31, 2004Angalee Ganske
Notary PublicSTATE OF VIRGINIA, CITY/COUNTY OF Mathews, to-wit:The foregoing instrument was acknowledged before me this 3 day of April, 2001,by Sherry C. AsheMy Commission expires: 5-31-2003Sherry C. Ashe
Notary Public

NATURAL RESOURCES COMMISSION

RECEIVED
SEP 7 2000

Shoreline placement extends
northward approximately 4500 ft.



CHESAPEAKE BAY

LEGEND

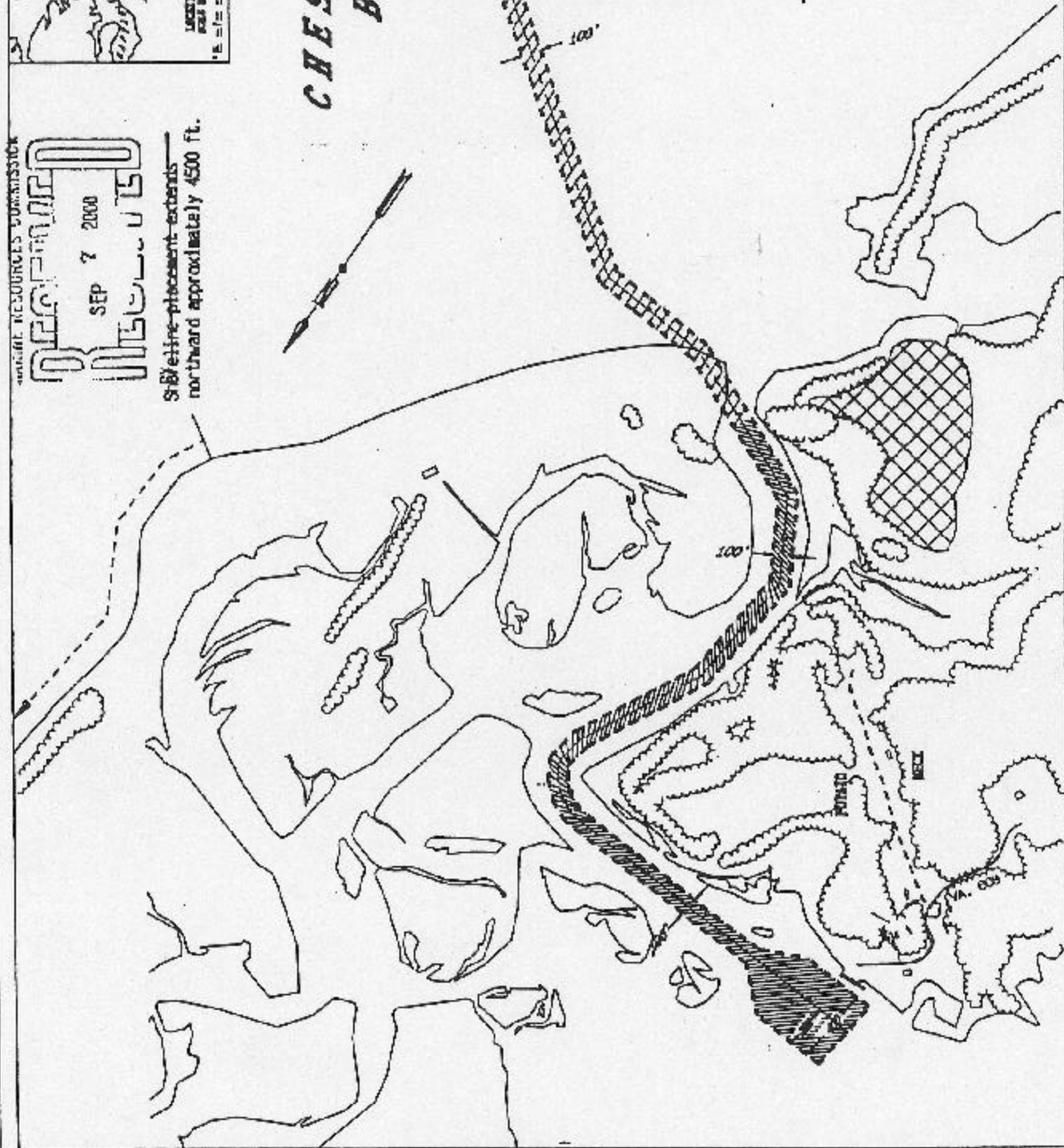
Channel area to be dredged with shoreline placement

Channel area to be dredged with upland placement

Limits of upland management area

Shoreline placement

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
NORFOLK, VIRGINIA
WINTER HARBOR
MATHEWS COUNTY, VIRGINIA
APPROXIMATE SCALE 1"=700'



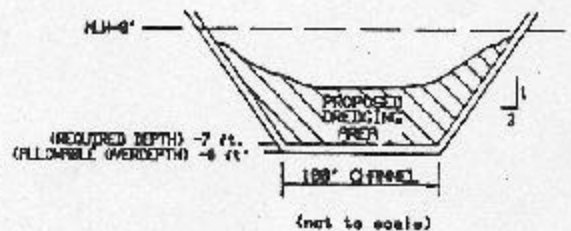
WINTER HARBOR

MATHEWS COUNTY, VIRGINIA

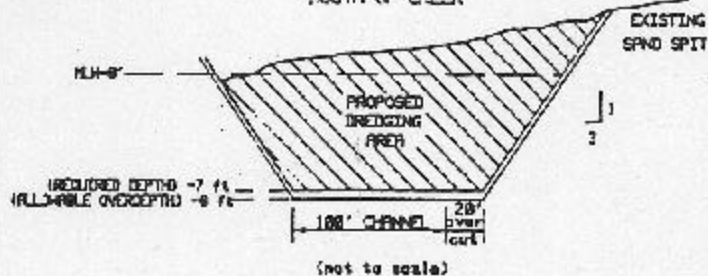
DREDGING AREAS

TYPICAL SECTIONS

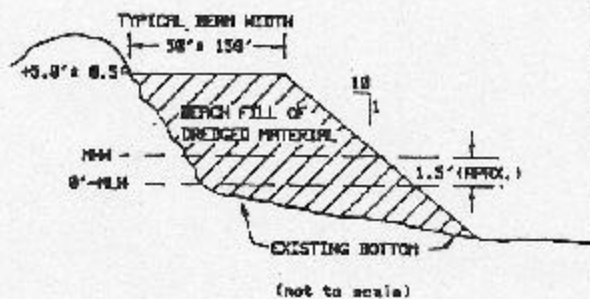
TYPICAL CHANNEL WIDTH



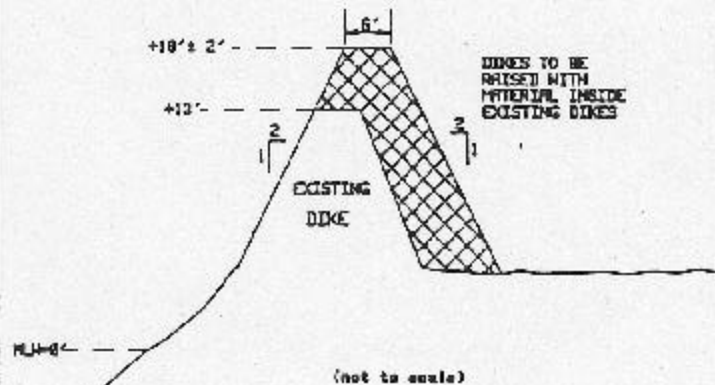
MOUTH OF CREEK



DREDGED MATERIAL
SHORELINE PLACEMENT



UPLAND PLACEMENT
DIKE



MARINE RESOURCES COMMISSION
RECEIVED
 SEP 7 2000
RECEIVED

SECTION 01451

CONTRACTOR QUALITY CONTROL

12/01

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction". The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

1.1.1 Applicable Publications

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (1996) Minimum Requirements for Agencies
Engaged in the Testing and/or Inspection
of Soil and Rock as Used in Engineering
Design and Construction

ASTM E 329 (1995b) Agencies Engaged in the Testing
and/or Inspection of Materials Used in
Construction

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated

therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

1.3 COORDINATION MEETING

As soon as practicable after receipt of Notice of Award and before start of the scheduled work, the Contractor shall meet with the Contracting Officer's Representative (COR) in coordination with the requirements of SECTION 01200 and discuss the Contractor's Quality Control (CQC) system. The Contractor's Project Manager, Submittals Clerk and Quality Control Manager, Dredge Captain and Plant Operators, and the Surveyor or Engineer to be employed by the Contractor to perform all surveys and layout of the work required of the Contractor shall attend this meeting. The Contractor is encouraged to have an officer of his company and representation from any major subcontractors at the conference. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the (CQC) operations, control activities, testing, administration of the system for both onsite and offsite, and the interrelationship of Contractor and Government control and surveillance. Minutes of the meeting will be taken and prepared by the Government, signed by both the Contractor and the COR, with signed copy provided to Contractor, which shall become a part of the contract file. There may also be occasions when subsequent conferences will be called to reconfirm understandings.

1.4 QUALITY CONTROL PLAN

1.4.1 General

Prior to start of the scheduled work operations, the Contractor shall furnish his CQC plan to the COR for acceptance. The CQC Plan the Contractor proposes to implement shall identify the personnel, procedures, instructions, records, and forms, and, as a minimum, shall include:

- a. A description of the quality control organization, including a chart showing lines of authority by name with duties and responsibilities of their respective position, qualifications (in resume format), and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified.

- b. The number, classifications, qualifications, duties, responsibilities and authorities of personnel. A copy of the

letter, signed by an authorized official of the firm, which describes the responsibilities and delegates the sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities, and shall furnish copies to the Government at the same time.

c. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person or laboratory responsible for each test (laboratory facilities will be approved by the CO).

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one

definable feature under a particular section. This list will be agreed upon during the coordination meeting.

1.4.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

1.4.3 Notification of Changes

After approval of the CQC plan, the Contractor shall notify the COR in writing of any proposed change to his CQC System.

1.4.4 Corrective Actions

If at any time the Government determines that the CQC system, personnel, instructions, controls, tests, or records are not providing scheduled work which conforms to contract requirements, action shall be taken by the Contractor to correct the deficient management.

1.5 QUALITY CONTROL ORGANIZATION

1.5.1 CQC Organizational Staffing

The Contractor shall provide a CQC organization staff which shall have complete authority to take any action necessary to ensure compliance with the contract. The CQC organization staff shall consist of a CQC system manager and supplemental staff as specified below, who shall answer to the Contractor's Project Manager. The Project Manager (who shall not be the project superintendent) shall be an executive member of the Contractor's organizational staff, and shall have supervisory powers over the CQC organization and the project superintendent. Following are the minimum requirements for the CQC organization staff. These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during dredging and dredged material placement operations. The actual strength of the CQC staff may vary during any specific period to cover the needs of the work.

1.5.1.1 CQC System Manager

The Contractor shall identify an individual within his organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall:

a. be an experienced construction management person with a minimum of five years experience in dredging and related beach fill work. This experience shall include successful completion of Course entitled "Construction Quality Management for Contractors". The Contractor shall complete this training within 30 calendar days of receipt of his Notice To Proceed. This course is offered periodically by the Corps of Engineers at an administrative cost not to exceed \$50.00 per person. Specific times and locations are available from the Norfolk District, Construction Operations Section, telephone (757) 441-7687.

b. be on the job site at all times during work operations and shall be employed by the Contractor.

c. be assigned as system manager but may have duties as the Project Superintendent in addition to quality control.

d. have an alternate who shall be identified in the plan to serve in the event of the CQC system manager's absence. CQC System Manager's period of absence may not exceed one week at any one time, and not more than fifteen workdays during a calendar year. The requirements for the alternate shall be the same as for the designated CQC System Manager.

1.5.1.2 CQC Supplemental Staff Personnel

When necessary for a proper CQC organization, the Contractor shall add additional staff at no cost to the Government. The staff shall be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the dredging operations. These individuals shall:

a. be employed by the Contractor, unless waived in writing by the Contracting Officer (CO). All CQC staff members shall be subject to interview prior to acceptance by the Contracting Officer.

b. assist and be responsible only to the CQC system manager. These personnel may perform other duties, but shall be

fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.

c. be physically present at the scheduled work site during work on their areas of responsibility.

d. have the necessary education and experience to ensure contract compliance and shall be responsible for assuring the Contractor's work complies with the contract requirements for their area of specialization.

1.5.2 Organizational Changes

The Contractor shall obtain the Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

1.6 SUBMITTALS

Submittals shall be accomplished as specified in Section 01330 SUBMITTAL PROCEDURES and as may be required in the respective specifications. The CQC Manager shall be responsible for certifying that all submittals are in compliance with the contract requirements.

1.7 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, including that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, mobilization and demobilization of the Contractor's plant, sitework and related operations, plant operations in conjunction with environmental monitoring and testing, and will be keyed to the proposed construction sequence. The controls shall be subject to the approval of the Contracting Officer and include at least three phases of control to be conducted by the CQC system manager for all definable features of work as follows:

1.7.1 Preparatory Phase

This phase shall be initiated after the Pre-Construction Conference, performed prior to beginning work on each definable feature of work, and shall include as a minimum the following:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract plans.
- c. A check to assure that all plant and equipment to be employed in the work has been tested, required documentation has been submitted, and their use on the work has been approved as specified.
- d. A check to assure that provisions have been made to provide required control inspection and testing.
- e. Examination of the respective work areas to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of approved equipment and plant to do the scheduled work is on hand and conforms to job requirements. A verification check to assure each item of plant and equipment is properly manned for the scheduled work.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for constructing the work, including repetitive deficiencies, and document construction tolerances and workmanship standards for each respective phase of work.
- i. A check to ensure that the portion of the plan and operations method for the work to be performed has been accepted by the Contracting Officer.
- j. The Government shall be notified at least forty-eight hours in advance of beginning any of the required action of the preparatory phase. The CQC system manager shall certify the requirements of this phase to be in accordance with contract requirements as a part of this notification. The results of the preparatory phase actions shall be documented by separate written minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

1.7.2 Initial Phase

This phase shall be accomplished at the beginning of each definable feature of work. The following shall be accomplished:

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory phase.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.

d. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

e. The Government shall be notified at least forty-eight hours in advance of beginning any of the required action of the initial phase. The CQC system manager shall certify the requirements of this phase to be in accordance with contract requirements as a part of this notification. The results of the initial phase actions shall be documented by separate written minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications. Exact location of initial phase inspections and verifications shall be indicated for future reference and comparison with follow-up phases.

f. The initial phase shall be repeated for each new crew to work on-site, when changes to approved plans or schedules are required, and any time acceptable specified quality standards are not being met.

1.7.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work is accomplished. The checks shall be made a matter of record in the Daily CQC Report documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by any preceding deficient work. The Contractor shall not build upon or conceal non-conforming work.

1.7.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted by the Contractor on the same definable features of work when directed by the COR.

1.8 TESTS

1.8.1 Testing Procedures

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product which conforms to contract requirements. The Contractor shall procure the services of an industry recognized testing laboratory or he may establish an approved testing laboratory at the project site. A list of tests which the Contractor understands he is to perform shall be furnished to the Contracting Officer. The list shall give the test name, specification paragraph containing the test requirements, and the personnel and laboratory responsible for each type of test. The Contractor shall perform the following activities and record and provide the following data:

(a) Verify that testing procedures comply with contract requirements.

(b) Verify that facilities and testing equipment are available and comply with testing standards.

(c) Check test instrument calibration data against certified standards.

(d) Verify that recording forms, including all of the test documentation requirements, have been prepared.

(e) Results of all tests taken, both passing and failing tests, shall be recorded on the Quality Control report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

1.8.2 Testing Laboratories

1.8.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils shall meet criteria detailed in \-ASTM D 3740-\ and \-ASTM E 329-\.

1.8.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge, equal to the cost of each recheck, to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

1.8.2.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

1.8.2.4 Transportation of Samples for Testing

Cost incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory or other place designated, as directed by the COR.

1.9 DOCUMENTATION

1.9.1 Current Quality Control Records

The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form, complete, legibly written or typed, and shall include factual evidence that required quality control activities and tests have been performed, including but not limited to the following:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed today, giving location, description, and by whom.
- d. Test and control activities performed with results and references to specifications/plan requirements. List deficiencies noted along with corrective action.
- e. Identify submittals reviewed, with contract reference, by whom, and action taken.
- f. Off-site surveillance activities, including actions taken.
- g. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- h. List instructions given/received and conflicts in plans and/or specifications.
- i. Contractor's verification statement.
- j. These records shall indicate a description of trades/workmen working on the project, the number of personnel working, weather conditions encountered, and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment utilized in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the COR daily within twenty-four hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1.9.2 Deficiency Tracking Log

The Contractor shall establish and maintain a daily formal deficiency tracking log that shall be kept at the job site. The log shall include as a minimum the following:

- a. Contract title and number.
- b. Deficient work (by an identification number).
- c. Description of corrective action(s).
- d. Date reported.
- e. Date corrected.
- f. Reported by.

1.10 NOTIFICATION OF NONCOMPLIANCE

The COR will notify the Contractor of any noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose of notification and be recorded in the Daily Report of Operations. If the Contractor fails or refuses to comply promptly, the COR may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.11 MEASUREMENT AND PAYMENT

Separate payment will not be made for any work performed under this section and all associated costs shall be included in the cost for all bid items.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

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SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

12/01

PART 1

1.1 SITE PLAN

The Contractor may use the disposal area for storage of materials and equipment; however, the location of Contractor storage, staging, and toilet facilities the Contractor may wish to utilize are subject to the approval of the Contracting Officer. The Contractor shall prepare a site plan indicating the proposed location and dimensions of any areas to be used by the Contractor, the type of facilities to be used, avenues of ingress/egress to the areas, and details of installation. Any toilet facilities used shall be fully self-contained.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

The Contractor is informed that utility services are not available in the work area and any such use or need by the Contractor shall be at his expense.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

SECTION 01850

DRAWING INDEX

The following drawings are included as a part to this Solicitation

Norfolk
District
File No.

Title

H-22-10-31
(in 3 sheets)

Winter Harbor Channel
Plans for Dredging
Survey of May and October 2001

Sketches

Base Sections BV, FV, SV, TV and Details A,
B, C, D, E, and F

(Note: The Sketches indicated above form a part of the contract and are included at the end of the Technical Specifications after SECTION 05120)

SECTION 02220

DEMOLITION

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

The work includes demolition of the existing spillbox in the dredged material placement area, including metal drainage pipe and all associated wood framing, and removal of resulting rubbish and debris. All demolished materials, rubbish and debris shall be removed from the construction site when demolition is complete and materials shall be disposed of as specified.

1.3 PROTECTION

1.3.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.3.2 Environmental Protection

The work shall comply with the requirements of Section 01355.

1.4 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.5 USE OF EXPLOSIVES

Use of explosives will not be permitted.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 EXISTING STRUCTURES

Existing concrete, metal and wooden spillbox construction, including concrete and metal outfall pipes and all associated construction apparatus, shall be completely removed.

3.2 FILLING

Holes and other openings from demolition operations shall be filled in accordance with Section 02235.

3.3 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or damage to such property after notice to proceed. All material demolished shall be removed from the site and disposed in approved landfills in accordance with all local laws and regulations.

3.4 CLEAN UP

Debris and rubbish shall be removed from the construction site and transported in a manner that prevents spillage. Local regulations regarding hauling and disposal shall apply.

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SECTION 02235
CLEARING, EXCAVATING, DIKE CONSTRUCTION
(Including Spillbox, Accessway and Drainage Piping),
AND FINISH GRADING

12/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)

ASTM A 760 (1997) Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains

ASTM F 547 (1977; R 1995) Definitions of Terms
Relating to Nails for Use with Wood and
Wood-Base Materials

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C2 (1995) Lumber, Timber, Bridge Ties and Mine Ties
- Preservative Treatment by Pressure Processes

AWPA C9 (1997) Plywood - Preservative Treatment by
Pressure Processes

AWPA M4 (1999) Standard for the Care of
Preservative-Treated Wood Products

AWPA P5 (1997) Standards for Waterborne Preservatives

1.2 SUBMITTALS

The Contractor shall make submittals for the following listed reports and certificates as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready

determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with SECTION 01451.

1.2.1 Plant Reports

Reports of inspections and tests, including analysis and interpretation of test results required to verify quality standards are met for materials provided.

1.2.2 Certificates of Compliance

Statement signed by an official authorized to certify on behalf of the manufacturer or supplier of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified in accordance with the contract specification.

1.2.3 Manufacturer's Instructions

The Contractor shall submit manufacturer's preprinted documents which graphically show relationship of various components of the work that describe installation of the respective product, schematic diagrams of systems and details of fabrication, layouts of particular elements for the location of installation, location and types of connections, and other relational aspects of the work.

1.3 CHARACTER OF MATERIALS

The materials to be excavated are predominately sandy (SP) materials which have historically been dredged from the nearby navigation channel and placed in the disposal area. Bidders are expected to examine the site of work and decide for themselves the character and state of the materials. The Contractor shall be fully responsible for his evaluation of character and state of the materials and his selection of equipment necessary to complete the construction of work specified.

1.3.1 Satisfactory Materials for Construction

All soils obtained from grading and excavating operations are

classified satisfactory for use in construction. Soils for this use shall be separated from all cut trees and vegetation, and any non-biodegradable trash and debris which is encountered during the clearing and excavating operations. The cut trees and other vegetation, and any non-biodegradable trash and debris which is encountered during the clearing and excavating operations, shall be removed from the site.

1.3.2 Unsatisfactory Materials for Construction

Cut trees and other vegetation, and any non-biodegradable trash and debris from clearing operations is classified as unsatisfactory and shall be removed from the construction site and disposed of in an approved landfill.

1.4 FIELD QUALITY CONTROL

The Contractor shall establish and maintain field quality control for clearing, excavating, ditching, pipe laying, and finish grading operations to assure compliance with contract requirements, and maintain records of the quality control for all construction operations including but not limited to the items indicated below:

- a. Lines, grades and tolerances
- b. Segregation of materials
- c. Disposal and stockpiling of materials
- d. Unsatisfactory materials
- e. Conditions that may induce seepage or weaken the finished piping foundation or earthwork
- f. Stability of excavations

Records of inspections and tests, as well as the records of corrective actions taken, shall be furnished to the Government in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

1.5 DELIVERY, STORAGE, AND HANDLING

1.5.1 Delivery and Storage

Materials delivered to site shall be inspected for damage, unloaded, and stored with a minimum of handling. Materials shall not be stored directly on the ground. The inside of pipes and fittings shall be kept free of dirt and debris. The Contractor shall have a copy of the manufacturer's instructions available at the construction site at all times and shall follow these instructions unless directed otherwise by the Contracting

Officer.

1.5.2 Handling

Materials shall be handled in a manner that ensures delivery to the trench in sound, undamaged condition. Pipe shall be carried to the trench, not dragged.

PART 2 PRODUCTS

2.1 DRAINAGE PIPE

ASTM A 760, zinc coated, Type I pipe with annular 2-2/3 by 1/2 inch corrugations, size as indicated.

2.2 CONCRETE AND STRUCTURAL STEEL

Concrete shall be provided in accordance with Section 03300. Structural steel and miscellaneous anchors and cables shall be provided in accordance with Section 05120.

2.3 FIBERGLASS GRATING

The grating shall be provided in a one-piece panel construction which incorporates a molded grid pattern with the tops of the bearing bars and cross bars in the same plane. The grating shall be manufactured using a pultruded process utilizing either an isophthalic polyester or a vinyl ester resin with ultra-violet (UV) inhibitor additives and provided in a nominal 4' x 8' panel. A synthetic surface veil shall be the outermost layer covering the exterior surface. After fabrication to dimensions indicated, all cut ends, holes and abrasions of the grating shall be sealed with a compatible resin coating approved by the manufacturer to prevent intrusion of moisture and premature fraying at the field cut edges. All exposed surfaces shall be smooth and true to form. All materials and equipment necessary for the fabrication and installation of the grating shall be stored before, during, and after shipment in a manner to prevent cracking, twisting, bending, breaking, chipping or damage of any kind to the materials or equipment, including damage due to over exposure to the sun. Any material which, in the opinion of the Contracting Officer, has become damaged as to be unfit for use, shall be promptly removed from the site of work, and the Contractor shall receive no compensation for the damaged material or its removal. Grating shall be shipped from the manufacturer, palletized and banded with exposed edges protected by cardboard to prevent damage in shipment.

2.3.1 Structural Requirements for Grating

The grating shall meet or exceed the following minimum loading requirements:

Concentrated load pounds/foot of width - 1,300
Deflection under concentrated load - 1,400
Uniform load pounds/foot² - 650
Deflection under uniform load - 1,700

Design of live loads on grating shall not be less than 100 pounds per square foot. Grating deflection at the center of the finished span shall not exceed 0.25 inch. Structural members shall be designed to support all applied loads. Deflection in any direction shall not be more than L/180 of span for structural members.

2.4 ACCESSWAY MATERIALS

2.4.1 Grading and Marking

2.4.1.1 Lumber

Lumber shall bear an AWPAA authorized gradestamp or grademark, recognized certification stamp, mark, or hammerbrand.

2.4.1.2 Plywood

Plywood shall bear the grademark or other identifying marks indicating grades of material and rules or standards under which produced, including requirements for qualifications and authority of the inspection organization.

2.4.2 Sizes

Lumber and plywood material sizes shall conform to requirements of the rules or standards under which produced. Unless otherwise specified, lumber shall be surfaced on four sides. Unless otherwise specified, sizes indicated are nominal sizes, and actual sizes shall be within manufacturing tolerances allowed by the standard under which the product is produced.

2.4.3 Treatment

All lumber and plywood members shall be treated. Exposed areas of treated wood that are cut or drilled after treatment shall receive a field treatment in accordance with AWPA M4.

2.4.3.1 Lumber

Lumber shall be treated in accordance with AWPA C2 with waterborne preservatives listed in AWPA P5 to a retention level of 0.40 pcf intended for ground contact and fresh water use.

2.4.3.2 Plywood

Plywood shall be treated in accordance with AWPA C9 with waterborne preservatives listed in AWPA P5 to a retention level of 0.40 pcf intended for ground contact and fresh water use.

2.4.4 Moisture Content

At the time lumber and plywood materials are delivered and when installed in the work their moisture content shall be: 4 inches or less nominal thickness, 19 percent maximum; 5 inches or more nominal thickness, 23 percent maximum in a 3 inch perimeter of the timber cross-section.

2.4.5 ACCESSORIES AND NAILS

Markings shall identify both the strength grade and the manufacturer. Accessories and nails used in the work shall be intended for exterior use and shall conform to the following:

2.4.5.1 Bolts: Lag, Toggle, and Miscellaneous Bolts and Screws

Type, size, and finish best suited for intended use. Finish options include zinc compounds, cadmium, and aluminum paint impregnated finishes.

2.4.5.2 Nails and Staples

ASTM F 547, size and type best suited for purpose; staples shall be as recommended by the manufacturer of the materials to be joined. For plywood, length of nails shall be sufficient to extend 1 inch into supports. In general, 8-penny or larger nails shall be used for nailing through 1-inch thick lumber and for toe nailing 2-inch thick lumber; 16-penny or larger nails shall be used for nailing through 2-inch thick lumber. Nails shall be galvanized. Nail spacing shall be sufficient to develop an adequate strength for the connection.

PART 3 EXECUTION

3.1 CLEARING AND DIKE CONSTRUCTION

All trees and other vegetation in areas to be excavated shall be removed to grade. The satisfactory soil material obtained from excavating and grading operations shall be used for construction of the dike as shown on the plans and as specified. Fill material for dike construction shall be compacted in lifts not to exceed 12 inches.

3.2 DIKE CONSTRUCTION

The satisfactory excavated soil material shall be used for construction of the dike as shown on the plans and specified. The alignment of the dike, along with typical section views showing horizontal details of required excavation and dike construction, are shown. The required dike shall be constructed to a minimum height elevation of +24.0 feet CELW. Dike height elevations above the +24.0 feet CELW are acceptable. The dike shall have a minimum top berm width of 6 feet and with 1-vertical on 2-horizontal side slopes. Upon completion of dredged material placement operations, the interior and exterior face and top of berm of the finished dike shall be seeded in two equal increments. Seeding operations shall be initiated within 48 hours after attaining the specified finished grading increment. The Contractor shall be responsible for selecting seeding materials and processes suited for the location of use and all work performed shall be in accordance with the manufacturer's printed recommendations.

3.3 SPILLBOX CONSTRUCTION

A new spillbox shall be constructed at the location shown on the plans. One effluent pipe shall be provided in accordance with ASTM A 760, zinc coated of Type I pipe with annular or helical corrugations, asphalt coated, 30-inch. The spillbox shall be anchored to an 8-foot by 8-foot, 18-inch thick concrete slab. The slab shall be formed and poured on top of a compacted earth foundation with six inches of gravel between the compacted earth and the slab. The concrete slab shall be anchored into the ground with four screw type anchors. The anchors shall be placed near each corner of the slab, approximately one foot from the edge of each adjacent side, and embedded a minimum of 12 inches into the slab after the slab is poured. A minimum of four L-brackets shall be welded to the spillbox and bolted to

the slab anchor bolts when the spillbox is set in place. The slab foundation and new spillbox shall be placed so that the invert elevation of the spillbox is at +14.5 feet CELW. New weir boards shall be installed up to a maximum +22.0 feet CELW elevation. Weir boards shall be treated in accordance with American Wood Preserves Institute Standard (AWPA) C2 with waterborne preservatives listed in AWPA P5 to a retention level recommended for water contact use. The spillbox shall also be further secured to the ground by four cables, each with cable couplings for adjusting cable tension, and eight screw type anchors. These cables shall extend from pad eye brackets welded to the middle of the spillbox to the anchors installed in the ground at an approximate angle of 45 degrees. The Contractor shall add additional anchoring to the spillbox and effluent pipe as necessary to prevent floating of these structures which may be caused by the Contractor's practices and procedures.

3.3.1 BACKFILL ADJACENT TO SPILL BOX

Backfill adjacent to spillbox shall be placed and compacted uniformly in such manner as to prevent wedging action or eccentric loading upon or against the structure. Slopes bounding or within areas to be backfilled shall be stepped or serrated to prevent sliding of the fill. During backfilling operations and in the formation of embankments, equipment that will overload the structure in passing over and compacting these fills shall not be used.

3.4 ACCESS WALKWAY

A walkway shall be constructed from the +24.0 feet elevation on the finished dike to the spillbox as indicated. The walkway shall be constructed with pressure treated wood or other materials approved by the Contracting Officer in writing. Walkway shall be treated in accordance with American Wood Preservers Institute Standard (AWPA) C2 with waterborne preservatives listed in AWPA P5 to a retention level recommended for water contact use. The walkway shall be framed and braced to provide safe access to the spillbox. The walkway shall have a minimum deck width of 4 feet and have well made continuous hand rails on both sides of the walkway deck. At the terminus of the walkway and the spillbox a stepladder shall be constructed on both sides from the deck to the ground. The contractor shall be responsible for the design and construction of the walkway, specifically including the framing, bracing, and sufficient footings. All work shall meet the requirements of the Life Safety Code and OSHA regulations.

3.5 FINISHED EXCAVATION, FILLS, AND EMBANKMENTS

Upon completion of dredging operations, all areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly smooth-graded. The finished surface shall be drained of all water pockets and graded reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade-grader operations, except as otherwise specified.

3.6 PROTECTION

Rip Rap and geotextile fabric shall be installed at the base of the outfall pipe to a level necessary to prevent scouring. Newly graded areas of the finished dike shall be protected from traffic and from erosion until seeded, and any settlement or washing away that may occur from any cause, prior to acceptance and approval of the established seeding, shall be repaired and grades reestablished to the required elevations and slopes. Reseeding in repaired grade areas shall be at the Contractor's expense. All work shall be conducted in accordance with the environmental protection requirements of the contract.

--END OF SECTION--

SECTION 02378

GEOTEXTILE FABRIC

12/01

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The current issues of the publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

American Society for Testing and Materials (ASTM)

- D 123 Standard Terminology Relating to Textiles (1996a)
- D 4354 Sampling of Geosynthetic for Testing (1996)
- D 4355 Deterioration of Geotextile from Exposure to Ultraviolet light and Water (Xenon-Arc Type Apparatus) (1992)
- D 4491 Test Methods for Water Permeability of Geotextiles By Permittivity (1999)
- D 4533 Standard Test Method for Trapezoid Tearing Strength of Geotextiles (1991;R 1996)
- D 4632 Standard Test Method for Breaking Load and Elongation of Geotextiles (Grab Method) (1991;R 1996)
- D 4751 Standard Test Method for Determining Apparant Opening Size of a Geotextile (1999)
- D 4833 Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products (1988;R 1996)
- D 4873 Guide for Identification, Storage, and Handling of Geotextiles (1997)
- D 4884 Seam Strength of Sewn Geotextiles (1996)

1.2 SHIPMENT AND STORAGE

During all periods of shipment and storage, the geotextile shall be protected from direct sunlight, ultra-violet rays, temperature greater than 140 degrees Fahrenheit, mud, dirt, dust, and debris. To the extent possible, the fabric shall be maintained wrapped in a heavy duty protective covering. All geotextile shall be labeled, shipped, stored and handled in accordance with ASTM D 4873.

PART 2 PRODUCTS

2.1 GEOTEXTILE

The geotextile shall be a woven pervious sheet of plastic yarn as defined by ASTM D 123. The geotextile shall meet the physical requirements listed in Table No. 1 of the specifications.

2.1.1 Geotextile Fiber

The geotextile fiber shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of polyolefins, polyesters, or polyamides. Stabilizers and inhibitors may be added to the base polymer if necessary to make the filaments resistant to deterioration due to ultra-violet light and heat exposure. Geotextile shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other, including the edges. The edges of the geotextile shall be finished to prevent the outer fiber from pulling away from the geotextile.

2.2 SEAMS

High strength thread shall be of a material meeting the chemical requirements given above for geotextile yarn and shall be used such that seam strength testing will conform to ASTM D 4884. The thread shall meet the ultraviolet and physical requirements of the geotextile, and the color shall be different from that of the geotextile. The seam strength shall be equal to the strength required for the geotextile as given for the required tensile strength (Table 1) of the unaged geotextile in any principal direction. Overlapping J-type seams, double sewed shall be used. The sheets of geotextile shall be attached at the factory or another approved location, if necessary, to form sections not less than 18 feet wide.

2.3 ACCEPTANCE REQUIREMENTS

All brands of geotextile and all seams to be used shall be accepted on the following basis. The Contractor shall furnish the Contracting Officer, in duplicate, a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the geotextile. The mill certificate or affidavit shall attest that the geotextile meets the chemical, physical and manufacturing requirements stated in this Specification. If requested by the Contracting Officer, the Contractor shall provide to the Government geotextile samples for testing to determine compliance with any or all of the requirements in this specification. When samples are to be provided, they shall be submitted a minimum of 30 days prior to the beginning of installation of the same geotextile.

All samples provided shall be from the same production lot as will be supplied for the contract, and shall be the full manufactured width of the geotextile by at least 10 ft. long, except that samples for seam strength may be a full width sample folded over and the edges stitched for a length of at least 5 feet. Samples submitted for testing shall be identified by manufacturers lot designation.

Table No. 1 - Physical Requirements (Note 2)

Physical Property	Test Procedure	Acceptable Values
Grab Tensile Strength (unaged geotextile) (Note 1)	ASTM D 4632	200 pound minimum in any principal direction
Breaking Elongation (unaged geotextile)	ASTM D 4632	15 percent minimum in any principal direction
Puncture Strength (unaged geotextile) (Note 1)	ASTM D 4833	80 pound minimum
Apparent Opening Size (AOS)	ASTM D 4751	No finer than the U.S. Standard Sieve No 50 and no coarser than the U.S. Standard Sieve No 30
Tear	ASTM D 4533	40 pound minimum in any

principal direction

Note 1 Unaged geotextile is defined as geotextile in the condition received from the manufacturer or distributor.

Note 2 All numerical values represent minimum average roll values (i.e., any roll in a lot should meet or exceed the minimum in the table).

PART 3 EXECUTION

3.1 INSTALLATION OF THE GEOTEXTILE

The geotextile shall be placed in the manner and at the locations shown on the drawings. At the time of installation, the geotextile shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation or storage. The surface to receive the geotextile shall be prepared to a relatively smooth condition free of obstructions, depressions, debris and soft or low density pockets of material. Erosion features such as rills and gullies shall be graded out of the surface before geotextile placement. The geotextile shall be placed with the long dimension parallel to the long axis of the structure and laid smooth and free of tension, stress, folds, wrinkles, or creases. The strips shall be placed to provide a minimum width of 36 inches of overlap for each joint.

3.1.1 Temporary Pinning

Temporary pinning of the geotextile to help hold it in place until the riprap is placed shall be allowed. The temporary pins shall be removed as the riprap is placed to relieve high tensile stress which may occur during placement of material on the geotextile.

3.1.2 Placement Procedure

The placement procedure requires that the length of the geotextile be approximately 15 percent greater than the slope length. The Contractor shall adjust the actual length of the geotextile used based on initial installation experience.

3.1.3 Geotextile Placement

The geotextile shall be protected at all times during construction from contamination by surface runoff and any geotextile so contaminated shall be removed and replaced with uncontaminated geotextile. Any damage to the geotextile during its installation or during placement of riprap shall be replaced by the Contractor at no cost to the Government. The work shall be scheduled so that the covering of the geotextile with a layer of the specified material is accomplished within 7 calendar days after placement of the geotextile. Failure to comply shall require replacement of geotextile. The geotextile shall be protected from damage prior to and during the placement of riprap or other materials. Before placement of riprap or other materials, the Contractor shall demonstrate that the placement technique will prevent damage to the geotextile. In no case shall any type of equipment be allowed on the unprotected geotextile.

---End of Section---

SECTION 02380

STONE PROTECTION

12/01

PART 1 GENERAL

1.1 REFERENCES

The following publication of the issue listed below but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto:

VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

VDOT RBS Road and Bridge Specifications (2000)

1.2 SUBMITTALS

The Contractor shall make submittals for the following listed reports and certificates as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with SECTION 01451.

1.3.1 Plant Reports

Reports of inspections and tests, including analysis and interpreting of test results required to verify quality standards are met for materials provided.

1.3.2 Certificates of Compliance

Statement signed by an official authorized to certify on behalf of the manufacturer or supplier of a product, system or material, attesting that the product, system or material meets

specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified in accordance with the contract specification.

PART 2 PRODUCTS

2.1 GENERAL

All stone shall be hard, sound, durable stone of igneous origin and free from structural defects as approved by the Contracting Officer. The sources from which the contractor proposes to obtain the material shall be selected well in advance of the time when the material will be required in the work. Contractor shall notify Contracting Officer a minimum of 30 days prior to stone placement so that a possible site visit by Government personnel may be arranged to the source of stone. Contractor shall submit "certificates of compliance" and "plant reports" attesting to the compliance of the stone to the contract specification and VDOT Standards.

2.2 QUALITY

Suitable tests and service records shall be submitted and will be used to determine the acceptability of the stone materials.

In the event suitable test reports and a service record, that are satisfactory to the Contracting Officer, are not available, as in the case of newly operated sources, the material shall be subjected to such tests as are necessary to determine its

acceptability for use in the work. Tests to which the materials may be subjected include petrographic analysis, specific gravity, abrasion, absorption, wetting and drying, freezing and thawing, and such other tests as may be considered necessary to demonstrate to the satisfaction of the Contracting Officer that the materials are acceptable for use in the work. All tests will be made by and at the expense of the Contractor under the supervision of the Government.

2.3 STONE

Stone shall be of the sizes indicated and shall be durable and of suitable quality to insure permanence in the structure and in the climate in which it is to be used. It shall be free from defects that would tend to increase unduly its

deterioration from natural causes. The inclusion of objectionable quantities of dirt, sand, clay, and rock fines will not be permitted.

2.3.1 Riprap

The stone shall meet or exceed the minimum requirements of VDOT RBS Section 204, Grade B, and applicable portions of Section 414 for Dry Riprap, class as indicated.

2.3.2 Filter Stone

The stone shall meet or exceed the minimum requirements of VDOT RBS Section 203, size as indicated.

PART 3 EXECUTION

3.1 PLACEMENT OF STONE

Stone shall be placed in accordance with SECTION 02378 and VDOT RBS Section 414 as applicable. Stone shall be placed to its full course thickness at one operation and in such a manner to avoid displacing the underlayer material or puncturing the geotextile. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified. Placing stone by dumping into chutes or by similar methods likely to cause segregation of the various sizes will not be permitted. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source, by controlled dumping of successive loads during final placing, or by other methods of placement which will produce the specified results. The contractor shall maintain the stone until accepted and any material displaced by any cause shall be replaced at his expense.

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SECTION 02881

DREDGING

12/01

PART 1 GENERAL

1.1 PLANT

Plant and equipment employed on the dredging work shall be in satisfactory operating condition, capable of safely and efficiently performing the work as indicated or specified, and shall be subject to inspection and approval by the Government at all times. Equipment and machinery, including pipelines and supporting plant, shall be subject to inspection and approval by the Government and kept in good condition at all times. A complete listing of all dredging plant and machinery to be used in the work, including booster pumps, skiffs, barges, and other related equipment, shall be submitted. The listing shall include year and manufacturer, operational capacities, safety features, operating and licensing requirements for operators, and a description where and how the item of equipment or plant will be employed in the work. Any leaks or deficiencies shall be promptly and properly repaired. No reduction in the capacity of the plant, once inspected and approved by the Government to be sufficient for employment on the work, shall be made except by written permission of the Contracting Officer. The measure of the "capacity of Plant" shall be its actual performance on the work to which these specifications apply. The Contractor shall submit, as a part of the Work Plan and Quality Control Plan, the manufacturer's pump curve for each pump to be used during the project. This submittal shall be provided by the Contractor for the purpose of verifying his available plant capacity is sufficient to accomplish the scheduled work in accordance with all contract requirements. The submittal shall include the dredge's main pump, and if applicable, the ladder pump and any booster pump(s) to be used on the contract. If a substitution of equipment occurs during the contract, the pump curve of the new pump(s) shall be submitted at the time of substitution and recorded in the Daily Report of Operations. Each pump curve submitted shall be clearly designated with the dredge name, contract number, pump function (main pump, ladder

pump, or booster pumps) and pump size. The pump curves shall indicate each respective pump's performance (i.e., pump Hp, efficiency and rpm's) for water plotted against hydraulic head and discharge velocity and GPM's. All data provided must be accompanied with documentation verifying the pumps to be utilized in this work have provided this efficiency on previous work in conditions and for material to be removed similar to that to be accomplished for this contract. All floating plant and pipelines used as accessways or working platforms shall be equipped with walkways and guardrails conforming to Corps of Engineers Manual EM 385-1-1 and meet OSHA requirements for worker safety. All buoyant (plastic) dredge pipelines that are used on this contract shall be weighted or anchored securely to the bottom so that the pipeline will stay on the bottom, and marked with floats or buoys during daylight and amber lights during darkness to mark distinctly the entire length and course of the line.

1.2 CHARACTER OF MATERIALS

The material to be removed for the project is predominately sandy materials (sp) and silty clay (sc). Bidders are expected to examine the sites of work and decide for themselves the character of the materials. The records of previous investigations and dredging, as applicable, are available in the Operations Branch at the Norfolk District. The Government does not warrant the accuracy of the records of previous dredging. Local minor variations in the subsurface materials are to be expected and, if encountered, will not be considered as being materially different within the purview of Contract Clause "DIFFERING SITE CONDITIONS". The records of previous dredging are available in the Operations Branch, Norfolk District, Corps of Engineers, 803 Front Street, Norfolk, Virginia 23510-1096. Local minor variations in the subsurface materials are to be expected and if encountered will not be considered as being materially different within the purview of Contract Clause "Differing Site Conditions".

1.2.1 Obstruction Identification

The Contractor may encounter obstructions or other debris that is not identified and may pose a hazard to navigation. The Contractor shall advise the Contracting Officer immediately of any obstructions or other debris of this nature that is

encountered.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PLACEMENT OF EXCAVATED MATERIAL

3.1.1 General

The Contractor will be required to use the designated Government- furnished placement areas as indicated. The material excavated shall be transported and deposited by a hydraulic pipeline dredge to the placement areas as indicated and specified. The dredge pipeline shall be placed and advanced in a manner to traverse and disturb marsh, seagrass and wetlands to the minimum amount practicable. Ingress and egress of personnel and equipment to these marsh, seagrass and wetlands areas shall be scheduled to coincide with high tide to the maximum extent practicable. The Contractor shall install a baffle plate, diffuser, or other approved apparatus to the discharge end of the dredge pipeline that shall precisely control the placement of the dredged material and increase the settlement rate of the material to the maximum extent practicable. The Contractor shall comply with all terms and conditions of the Department of Environmental Quality (DEQ) Water Protection Permit, the Virginia Marine Resources Commission Permit, and the Mathews County Wetlands Board Permit that are included as a part of this contract at the end of SECTION 01355 ENVIRONMENTAL PROTECTION.

3.1.2 Beach Placement Area

The Contractor shall mark the placement area in the field with metal pipes driven a minimum of 2 feet below the existing sediment surface. The pipes shall protrude vertically up to minimum elevation of +4 feet above CELW and shall be painted bright orange. The pipes shall be placed every 100 feet along the beach placement area at both the mean high water line and the channelward limit of the beach berm. The Contractor shall have a licensed engineer or surveyor mark the +3 feet above CELW elevation on each of the pipes. The Contractor shall place all material dredged between station 44+00 and 80+00 onto the beach placement area. Placement of the material

shall commence at the Southern end of the placement area and proceed North construction the required berm until the dredging of the outer channel is completed. The Contractor shall employ a diffuser or similar apparatus on the end of the pipeline which will allow the material to be placed on the beach without eroding the existing sand. The Contractor shall only use low ground pressure equipment on the beach not weighing greater than 4,000 pounds. The Contractor shall ensure that the material is placed on the beach in a lift not to exceed one foot, measured vertically, above the existing beach material elevation for the area lying between the mean high water line and the landward limits of the placement area.

The Contractor shall take all steps necessary to minimize human activity of the beach during construction.

3.1.3 Upland Placement Area

The Contractor shall employ proper dredging and placement methods to ensure that the minimum adequate ponding depth is maintained and that a minimum of two feet of freeboard, measured at the minimum containment dike elevation, is maintained at all times. The Contractor shall immediately suspend dredging and placement operations in the event of any containment dike failure or if dike failure appears to be imminent. The Contractor may resume work only after suitable permanent repairs to the containment dike have been made. Any damages that result from the negligence of the Contractor to properly manage the dredged material placement and properly maintain the containment dikes shall be fully repaired by the Contractor at his own expense. The Contractor shall leave the placement site in a well maintained condition and ponded water depths shall be within the limits as specified. The spillbox shall be well maintained with the boards at the correct level and free of trash and debris at all times. The Contractor shall perform grading and ditching as necessary to eliminate undrained areas within the containment area. The Contractor shall submit his proposed placement plan as a part of the overall work plan and requirements of which shall be subject to approval of the Contracting Officer.

3.1.4 Water Quality Monitoring Controls

In addition to the requirements specified in paragraph "Control of Placement Area Effluent", the Contractor shall

take all precautions that in the opinion of the Contracting Officer may be necessary to minimize the escape of dredged material into the navigable waters. Water samples of nearby navigable waters shall be taken daily during dredging operations up current and down current from the dredge and placement area. Water samples shall be taken after each change in tidal current flow up current from the dredge and placement area. These samples shall serve as the benchmark water quality standard for which measurements of samples taken in the vicinity down current of the dredging and placement area shall be compared. Water samples from the water surface in the vicinity immediately down current of the placement area and at the spillbox shall be taken as often as necessary to conform to the requirements as specified. Water samples immediately down current from the dredge and placement area shall be taken not less than once during each respective tidal current flow, and samples at the spillbox not less than twice daily. Density tests shall be performed on all water samples as outlined in paragraph titled "Control of Placement Area Effluent", in a manner and at proposed locations as approved by the Contracting Officer. In the event a water sample taken down current from the dredge, down current from the vicinity of the placement area, or at the spill box proves to be greater than 2 grams per liter in excess of the density of the water sample taken up current in the vicinity of the area being dredged established as the benchmark water quality standard, dredging operations shall be stopped immediately or the discharge flow shall be reduced. Dredging can resume maximum operations once the difference in the density tests becomes less than 2 grams per liter. All samples taken shall be recorded by the Contractor and included with the Daily Report of Operations. The Contractor shall provide constant monitoring of the placement operations when dredging and material placement operations are in progress. Monitoring personnel shall have fully functional two-way radio communications with the dredge operator at all times when dredging is in progress. Frequent communication checks shall be made to assure proper material placement during dredging operations. In the event of any communications failure or improper material placement is determined, all dredging and placement operations shall be immediately suspended until communications are restored as approved by the Contracting Officer, or in the event of improper material placement, until proper material placement procedures are reestablished by the Contractor as approved by

the Contracting Officer. All costs resulting from suspensions of work as specified above shall be the responsibility of the Contractor and at no additional expense to the Government.

3.1.5 Warning Signs

The Contractor shall erect and maintain at his own expense suitable navigation warning signs at each end of a submerged pipeline and at any other points necessary to prevent hazards to navigation.

3.1.6 Examination of Pipeline

The pipeline, including connections used for a submerged line, shall be examined and determined to be in good condition to reasonably expect it to last throughout the job without wearing to the extent of allowing leaks.

3.1.6.1 Leaks

In the event that leaks occur anywhere in the pipeline, the Contractor will be required to immediately discontinue using the respective equipment until the leaks are stopped. The Contractor shall also be required to recover at no cost to the Government any material improperly placed because of a leak or leaks in the equipment.

3.2 PLACEMENT AREA CONTROL

All markings to be placed in the field by the Contractor for layout of the work, including but not limited to placement area control points, pipeline routes, and range markers and buoys, shall be provided by a professional engineer or surveyor licensed in the Commonwealth of Virginia. The in-place markings shall be verified by the Government before commencement of dredging and placement operations. The Contractor shall give the Contracting Officer a minimum 14 calendar day written notice in advance of commencement of dredging operations to assure the completion of the Government verification review of the in-place markings.

3.3 REQUIRED DREDGING PRISM, OVERDEPTH, AND SIDE SLOPES

3.3.1 Required Dredging Prism

Within the specific areas indicated to be dredged or areas approved by the Contracting Officer, the required dredging prism is defined by the required depths and applicable side slopes as indicated and specified. The actual quantity within the required dredging prism will be computed from the last surveys made before dredging.

3.3.2 Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the specific areas to be dredged to a depth of not more than one foot below the required depth will be estimated and paid for at the contract price.

3.3.3 Side Slopes

Material actually removed, within limits approved by the Contracting Officer, to provide for final side slopes not flatter than 1 vertical on 3 horizontal, but not in excess of the amount originally lying above this limiting side slope, will be estimated and paid for, whether dredged in original position or by dredging space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. In computing the limiting amount of side-slope dredging an overdepth of one foot measured vertically will be used.

3.3.4 Method of Obtaining Soundings

Soundings to determine the volume of material removed under this contract will be made with an Innerspace Technology, Inc. Model 448 Thermal Depth Sounder Recorder with an operating frequency of 208 kilohertz and a 3 degree beamwidth at -3db. The equipment will be calibrated by the bar/ball check or velocity probe method to compensate for variations of the velocity of sound in water.

3.3.5 Basis of Surveys

The Government hydrographic surveys shall be the sole basis for determining payment for dredging and final acceptance.

3.4 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for all dredging operations to assure compliance with contract requirements and record his inspections and tests under this system.

3.4.1 Inspections and Testing Requirements

Inspections and testing shall be the responsibility of the Contractor including but not limited to the following:

3.4.1.1 Control of Dredging Area and Placement Area Effluent

The Contractor shall take samples as often as required but at least twice daily. The density of the effluent shall be determined by a hydrometer or weight-volume method as hereinafter specified. The Contractor will have the option of the hydrometer method when settled solids are not present in the sample. When settled solids are present the weight-volume method shall be employed for density determinations. The same technique shall be used for making the water density determinations in the vicinity of the benchmark area as in the respective work areas. When the hydrometer is used, an instrument such as Fisher Brand #14-331-5C2, or approved equal, shall be used. When the weight-volume method is employed, a 1,000cc laboratory cylinder and a scale or balance capable of weighing the sample and cylinder to the nearest gram shall be used.

3.4.1.2 Equipment and Machinery Requirements

All measuring equipment, global positioning systems (GPS) and other electronic positioning systems, data plotting and recording equipment, and the procedures associated with each respective item of equipment, shall be subject to the approval of the Contracting Officer. Verification of current calibration for each respective item of equipment, as approved by the Contracting Officer, shall be provided by the Contractor prior to use of the equipment on the work. All records produced by the equipment shall be inspected and certified as complete by the Contractor's Quality Control Representative and included as a part of the Daily Quality Control Report.

3.4.1.3 Miscellaneous Inspections and Test Records

A copy of the records of all inspections and tests, as well as record of corrective action taken, shall be included in the Control Plan and furnished to the Contracting Officer as a part of the Daily Quality Control Report.

3.4.1.4 Inspection and Test Records

A copy of the records of inspections and tests, as well as record of corrective action taken, shall be provided to the Contracting Officer with the Daily Report of Operations.

3.4.1.5 Reporting and Certificates

All measuring, plotting, and recording equipment and procedures shall be subject to the approval of the Contracting Officer. Verification of their calibration, certified by the Contractor's Quality Control Representative, shall be furnished prior to use on the work. All records produced by the equipment shall be authenticated by the authorized representative of the Contractor and then provided to the Contracting Officer with the Daily Report of Operations.

3.4.1.6 Placement Area Inspections and Tests

Inspection for adequacy of placement area control discharge and advancement methods, inspection for any required placement area maintenance, and surveillance for breaks in piping or overflow of dredged material outside of placement area.

3.4.1.7 Photographic Documentation

The Contractor shall take color photographs of his dredging and placement operations, clearly depicting the operation of each piece of dredging, placement and supporting equipment used during this contract. The Contractor shall also take color photographs of each placement area prior to and following placement area operations. Two copies of each photograph shall be printed on 4" by 6" high quality photographic paper. The back of each photograph shall be permanently fixed with a paper label containing the date and time each photograph was taken, the project name, the permit number, the name of the person taking the photograph, a

description of the scene being photographed, and the signature of the person taking the photograph. One set shall be sent to the Virginia Department of environmental Quality Kilmarnock Office, Post Office Box 669, Kilmarnock, Virginia 22482. One set of photographs with a copy of the transmittal letter shall also be furnished to the Contracting Officer at that time.

3.5 REPORTING REQUIREMENT

The Contractor shall prepare and maintain a Daily Report of Operations and furnish copies daily to the Contracting Officer. A copy of the form prescribed for recording the required information and any further instructions on the preparation of the report will be furnished at the preconstruction conference noted in Section 01005. The Contractor shall also furnish the following item daily to the Contracting Officer during dredging operations:

- (1) Copy of dredge leverman's log
- (2) Records of dredge pump vacuum and pressure gauge readings

SECTION 03300

CAST-IN-PLACE CONCRETE

12/01

PART 1 GENERAL

1.1 SUMMARY (NOT APPLICABLE)

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. The most recent issue of the publication in effect on date of solicitation shall govern the work.

AMERICAN CONCRETE INSTITUTE (ACI)

ACI 301 (1996) Standard Specifications for
Structural Concrete

ACI 305R (1991) Hot Weather Concreting

ACI 306R (1991) Cold Weather Concreting

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 94 (1999) Ready-Mixed Concrete

ASTM C 1107 (1999) Packaged, Dry, Hydraulic-Cement
Grout (Nonshrink)

1.3 GENERAL REQUIREMENTS

1.3.1 Strength Requirements

Concrete for all work shall have a 28-day compressive strength of 4000 pounds per square inch.

1.3.2 Air Entrainment

All concrete shall contain from 4 to 7 percent total air.

1.3.3 Slump

Slump shall be maximum 3-inches.

1.3.4

PART 2 PRODUCTS

2.1 CONCRETE INGREDIENTS

Concrete ingredients shall conform to ASTM C 94; type of cement used shall be type II.

2.2 CURING MATERIALS

ACI 301.

2.3 FORM MATERIALS

ACI 301.

2.4 REINFORCING

Reinforcing shall be deformed, Grade 60 steel conforming to ACI 301.

2.5 WATER

Water shall be potable.

2.6 NONSHRINK GROUT

Nonshrink grout shall conform to ASTM C 1107, Grade suitable for marine use, and shall be a commercial formulation suitable for the proposed application.

PART 3 EXECUTION

3.1 FORMWORK

ACI 301.

3.2 INSTALLATION OF REINFORCING

ACI 301.

3.3 BATCHING, MIXING AND TRANSPORTING CONCRETE

The work shall conform to ASTM C 94, ACI 301, ACI 305R, and ACI 306R, except as otherwise specified.

3.4 PROTECTION

ACI 301.

3.5 FINISHING CONCRETE

3.5.1 Formed Surfaces

Smooth form finish.

3.5.2 Top of Slabs

Lightly-trowled finish. Provide a broomed texture.

3.6 CURING AND PROTECTION

ACI 301.

3.7 TESTING AND ACCEPTANCE OF CONCRETE

ACI 301.

SECTION 05120

STRUCTURAL STEEL

12/01

PART 1 GENERAL

1.1 SUMMARY (NOT APPLICABLE)

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC ASD Manual (1989) Manual of Steel Construction
Allowable Stress Design

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 36 (1997a) Carbon Structural Steel

ASTM A 123 (1997a) Zinc (Hot-Dip Galvanized) Coatings
on Iron and Steel Products

ASTM A 307 (1997) Carbon Steel Bolts and Studs, 60,000
psi Tensile Strength

ASTM A 325 (1997) Structural Bolts, Steel, Heat-
Treated, 120/105 ksi Minimum Tensile
Strength

ASTM A 653 (1997) Steel Sheet, Zinc-Coated
(Galvanized) or Zinc-Iron Alloy-Coated
(Galvannealed) by the Hot-Dip Process

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1 (1998) Structural Welding Code - Steel

STEEL STRUCTURES PAINTING COUNCIL (SSPC)

SSPC-PS 15.03 Chlorinated Rubber Painting System for

Marine and Industrial Atmospheres

1.3 GENERAL REQUIREMENTS

The Contractor shall be responsible for correctness of detailing, fabrication, and for the correct fitting of structural members. Substitution of sections or modification of connection details, or both, will not be accepted by the Government. Connections fully designed and detailed on the contract drawings shall be provided as shown. Members and connections, for any part of the structure, not shown on the contract drawings shall be the Contractor's responsibility; such connections shall be considered standard and designed and detailed in accordance with AISC ASD Manual. Welding shall be in accordance with AWS D1.1.

1.4 SUBMITTALS

All submittals shall be in accordance with Section 01440. Certified copies of mill test reports for structural steel and other related structural steel items shall be provided. The Contractor shall submit an erection plan of the structural steel framing required. Erection plan shall be submitted for approval prior to erection, and shall describe all necessary temporary supports, including the sequence of installation and removal. Certified copies of welders qualification test records showing qualification in accordance with AWS D1.1. Shop drawings for construction and placement of spillbox and appurtenant structures, indicating all erection details including members (with their connections) not shown on the contract drawings. Welds shall be indicated by standard welding symbols in accordance with AWS D1.1.

1.5 STORAGE

Material shall be stored out of contact with the ground in such manner and location as will minimize deterioration.

PART 2 PRODUCTS

2.1 STRUCTURAL STEEL

Steel shall be galvanized in accordance with ASTM A123 and A653, as applicable. Galvanizing shall be performed after fabrication to the maximum extent practical. Any galvanized areas removed for welding or is otherwise abraded by the

Contractor's work operations shall be cleaned and painted with a zinc-rich coating of the same quality as that used for the G90 galvanizing as specified.

2.1.1 Carbon Grade Steel

Carbon grade steel shall conform to ASTM A 36, galvanize G90.

2.1.2 Anchor Bolts

ASTM A 307, size intended for installation required, galvanize G90.

2.1.3 Miscellaneous Anchors and Cables

Screw type anchors shall have a minimum holding strength of 10 kips and be recommended by the manufacturer for the intended use. Other anchors shall be provided at locations indicated and be recommended by the manufacturer for the intended use. Markings shall identify the strength and grade, galvanize G90. Cables shall each be provided with cable couplings for adjusting cable tension.

2.1.4 Spillbox Ladder

A steel ladder shall be provided in accordance with OSHA requirements on the interior of the spillbox at the immediate junction of the access walkway and opening at top of spillbox. The ladder rungs shall not be less than 3/4 inch diameter spaced 12 inches apart. Ladder and associated structural connections shall be galvanized after fabrication in conformance with ASTM A 123.

2.1.5 Steel Items Not Galvanized

Ferrous items not galvanized shall be painted in accordance with SSPC Paint System 15.03.

PART 3 EXECUTION

3.1 STEEL FABRICATION

AISC ASD Manual of Steel Construction.

3.2 FIELD WELDED CONNECTIONS

AWS D1.1.

3.3 PAINTING

SSPC Painting System No. 15.03.

PLATE CUT AWAY
FOR CLARITY

C5x6.7(TYP)

1/2" R

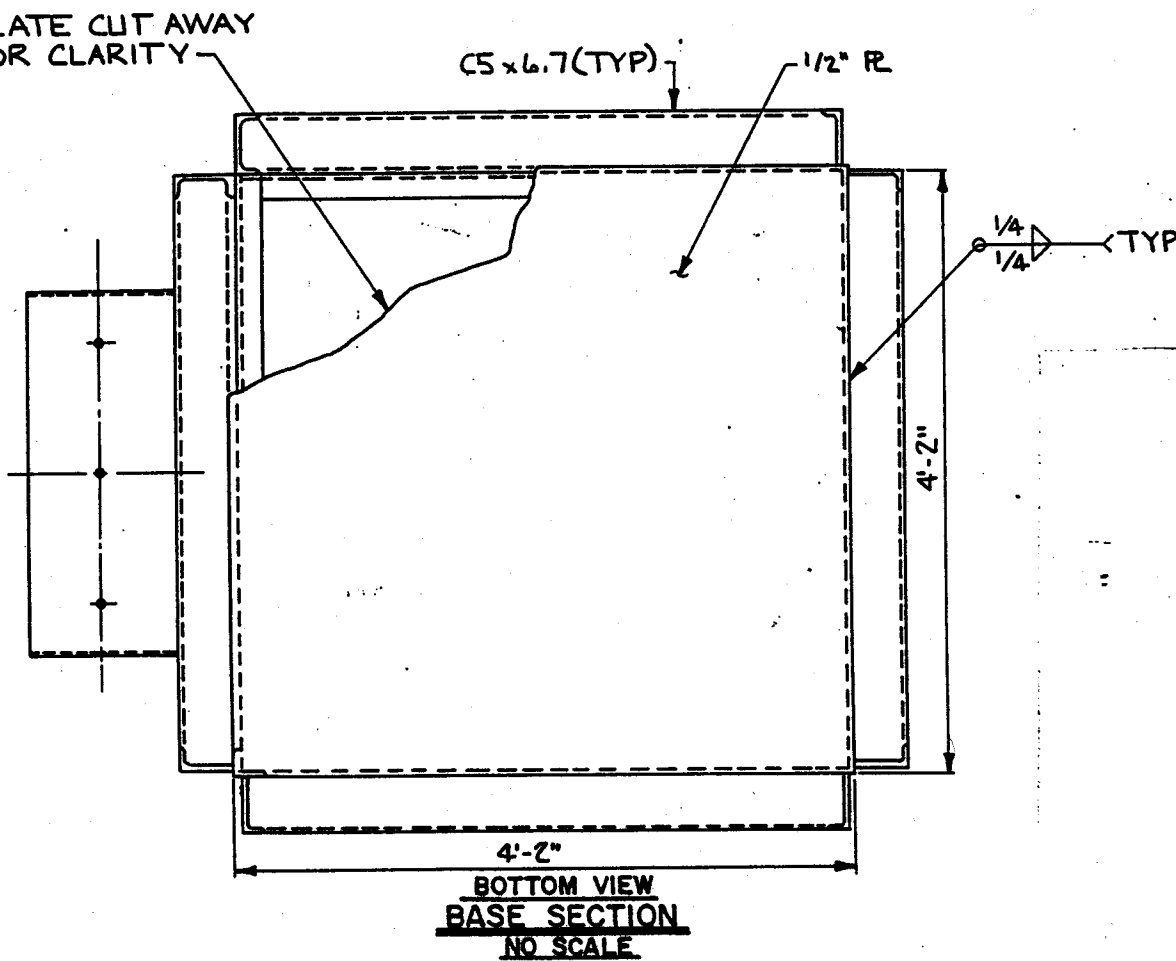
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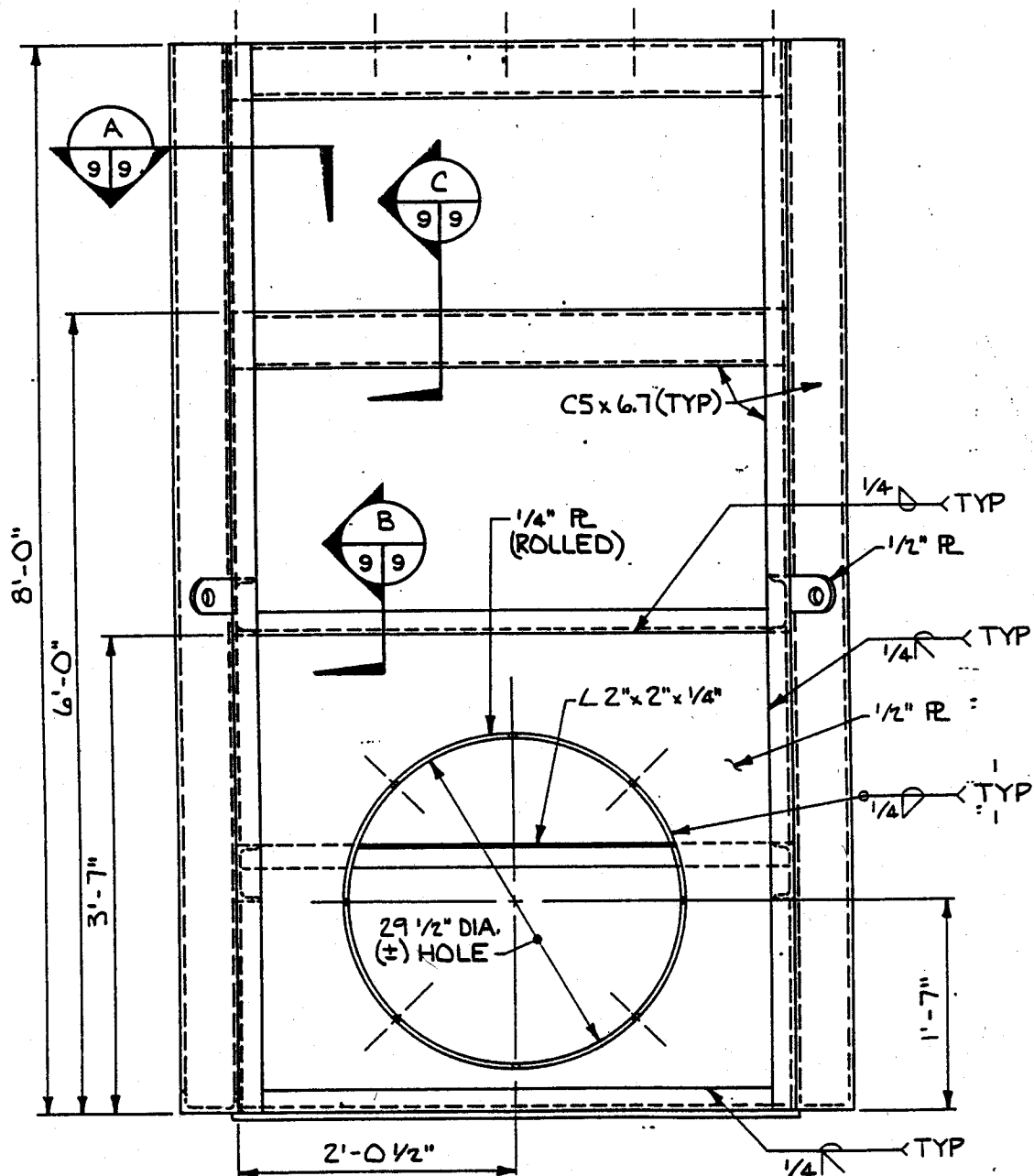
TYP

4'-2"

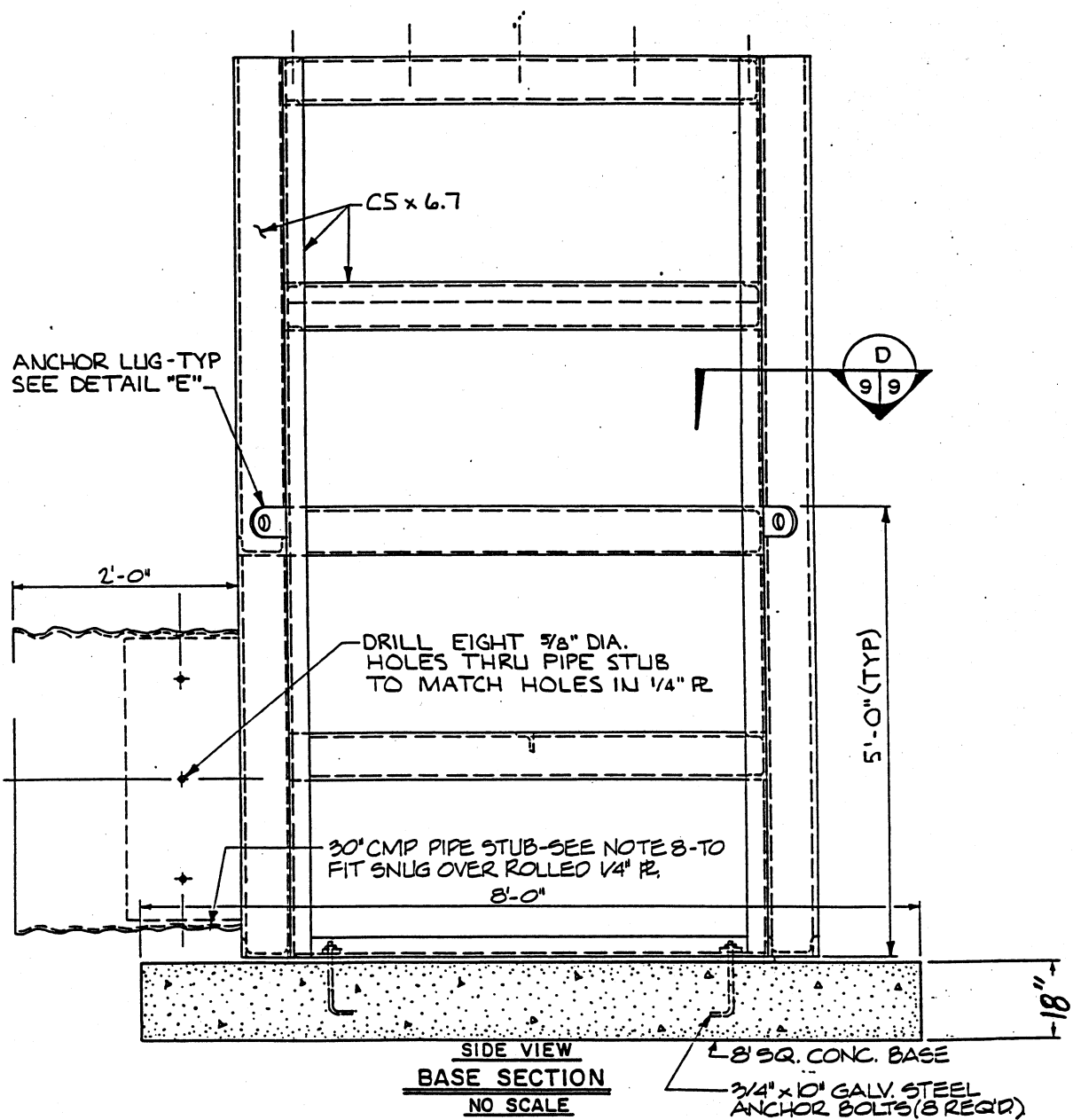
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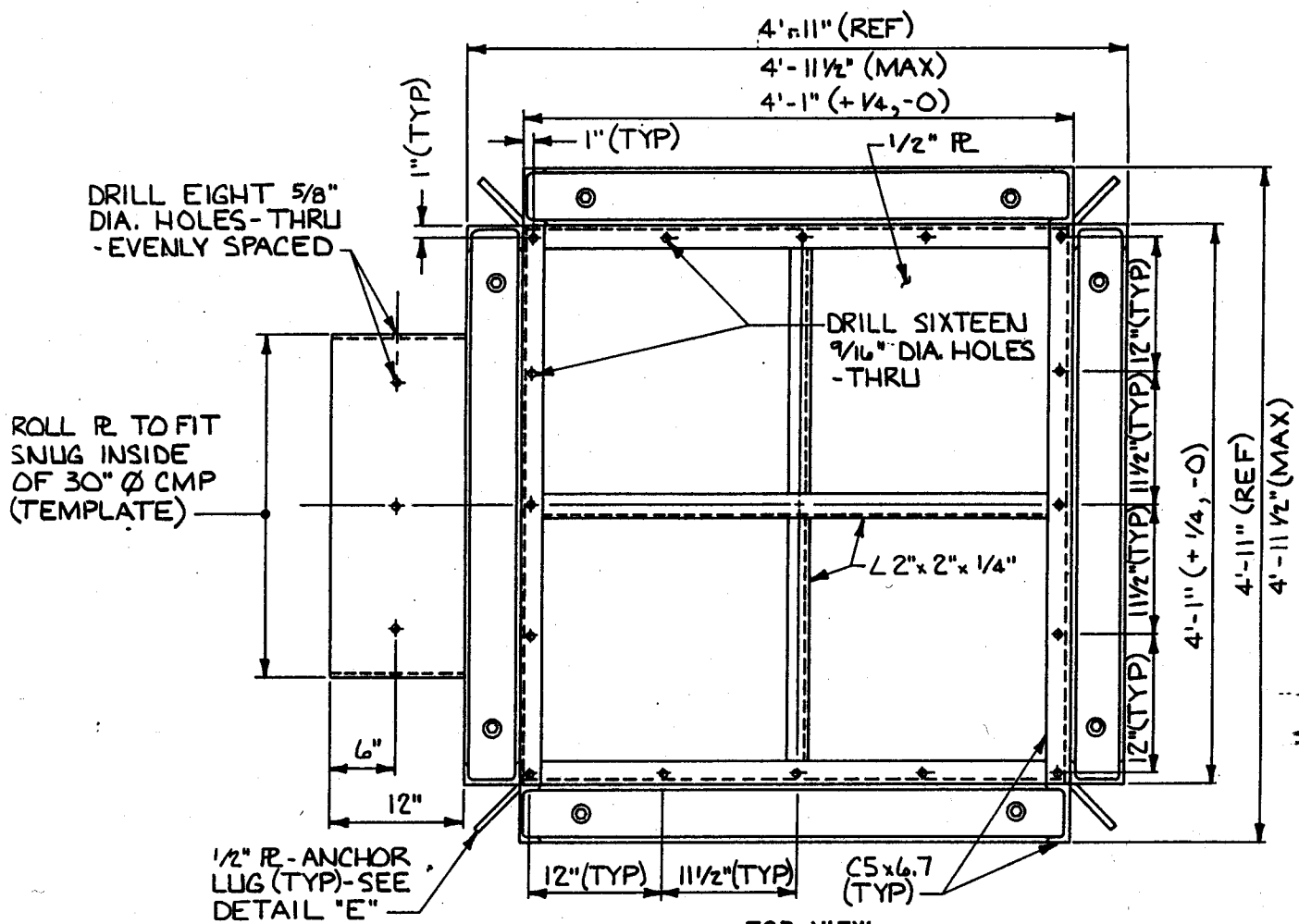
BOTTOM VIEW
BASE SECTION
NO SCALE



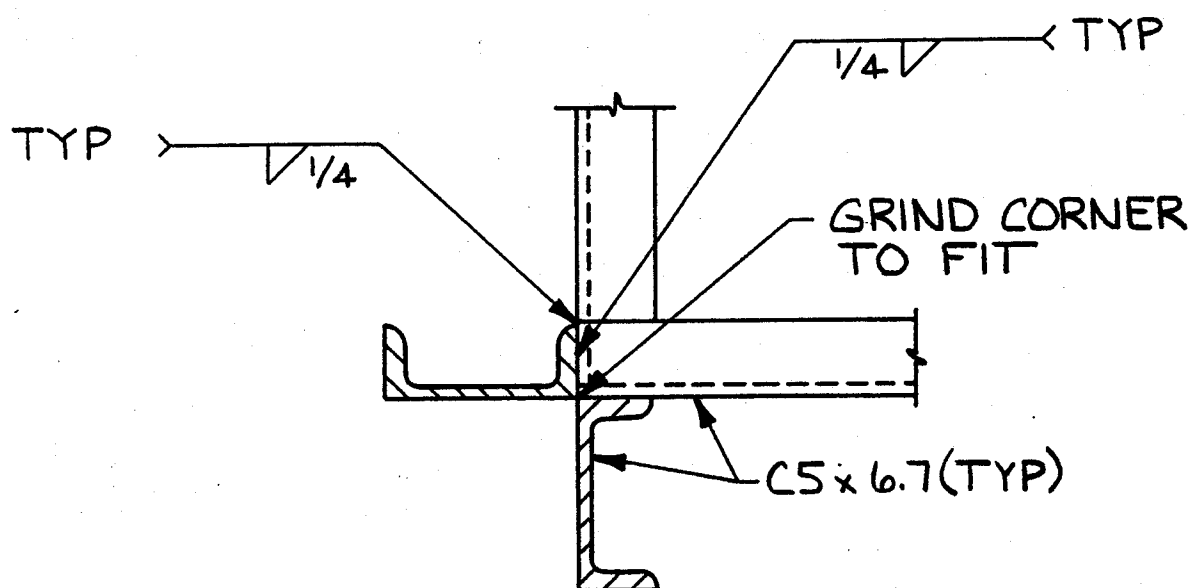


FRONT VIEW
BASE SECTION (3 REQ'D)
NO SCALE

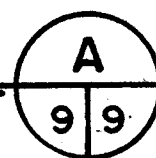


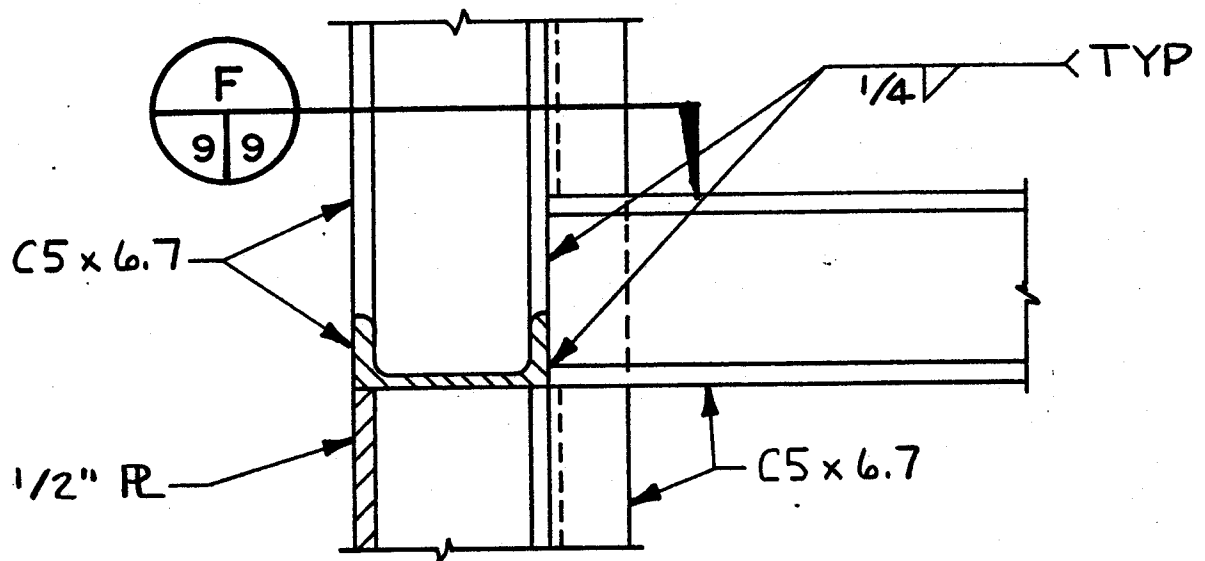


TOP VIEW
BASE SECTION
NO SCALE

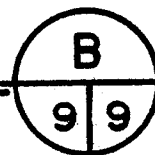


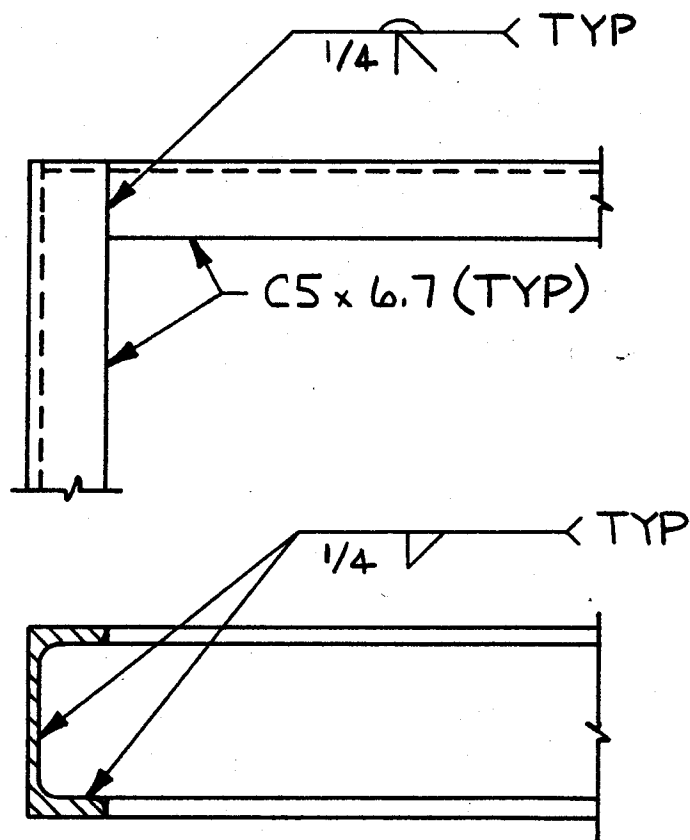
SECTION
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SECTION
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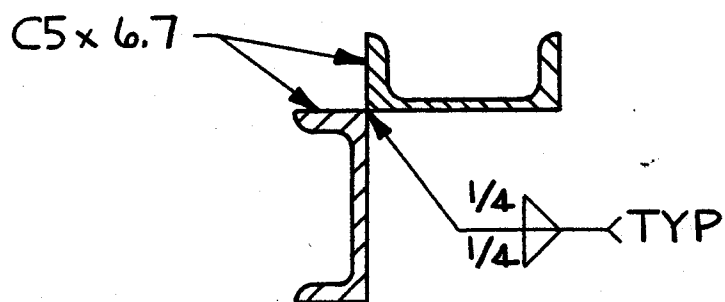


SECTION

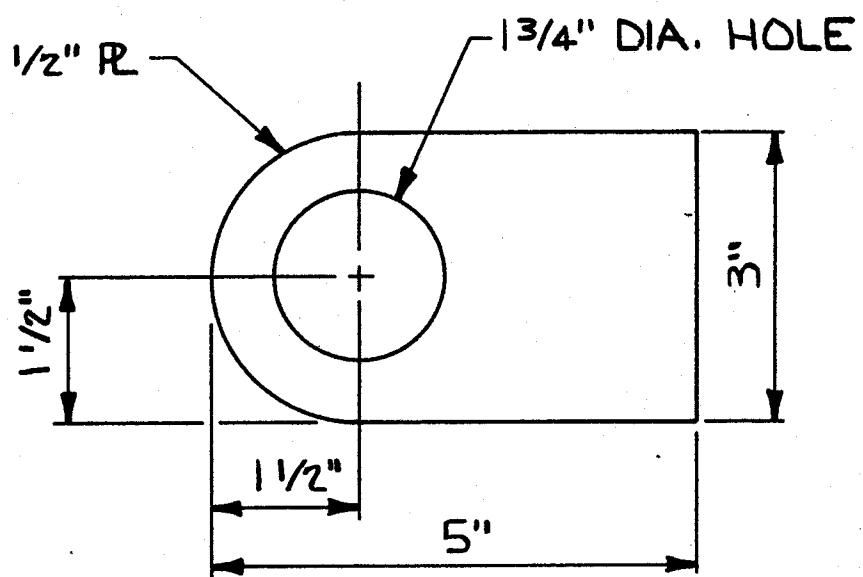
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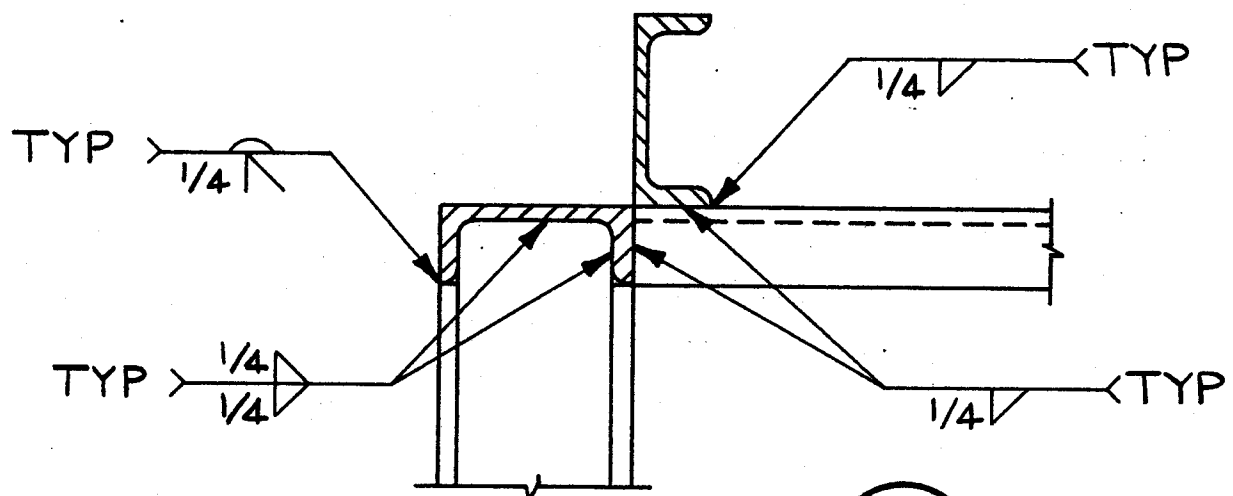
C	
9	9



SECTION	D
<u>NO SCALE</u>	9 9



DETAIL "E"
NO SCALE



SECTION
NO SCALE

F	
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